JPRS-TTP-86-021
4 SEPTEMBER 1986

Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH, AND DEVELOPMENT

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-TTP-86-021

4 SEPTEMBER 1986

WORLDWIDE REPORT

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

CONTENTS

ASIA

HONG KONG

Cable TV Network Gets Approval From Government
(Hong Kong SOUTH CHINA MORNING POST, 11 Jul 86; Hong Kong SOUTH CHINA SUNDAY MORNING POST, 20 Jul 86)..... 1

Project Plans, by Paul Baran 1
Channel Bidder, by Carolyn Leung 2

Broadcasting Review Board's Proposals Under Attack
(Ann Quon; Hong Kong SOUTH CHINA SUNDAY MORNING POST, 13 Jul 86)..... 3

C&W Cites Plans To Streamline Operations
(Hong Kong SOUTH CHINA SUNDAY MORNING POST, 13 Jul 86)..... 5

JAPAN

NASDA, Mitsubishi React to Report on Rocket Deal
(Tokyo KYODO, 17 Jul 86)..... 6

Technical Problem Develops With H-1 Rocket
(Tokyo KYODO, 15 Jul 86)..... 8

PEOPLE'S REPUBLIC OF CHINA

DτVCA Method Suppressing Interference Pulse
(Long Dehao; Chengdu SICHUAN DAXUE XUEBAO (ZIRAN KEXUE BAN), No 1, 1986)..... 9

Design of 10.7M Piezoelectric Ceramic Saw if Filter Used for FM Receiver
(Wang Dunping; Chengdu SICHUAN DAXUE XUEBAO (ZIRAN KEXUE BAN), No 1, 1986)..... 10

Telecommunications Enterprise Groups Planned
(Beijing XINHUA, 17 Jun 86)..... 11

Satellite Educational TV Channel Planned
(Beijing XINHUA, 28 Feb 86)..... 12

China's Longest Coaxial Cable Now in Operation
(Beijing XINHUA, 2 Mar 86)..... 13

Briefs
Electronic Paging Systems 14
Hainan Satellite Relay Operations 14
Overseas Mail Service via Facsimile 14
Optic Fiber Phone Line 15
'Computerized Text' Over Satellite 15
Jiangsu Country TV Station 15
Remote-Sensing Ground Station 15
Norwegian Phone Exchange Contract 16
Shanghai Television System 16
Ningxia's Yinchuan Radio Transmitter 16
Satcom Exchange

TAIWAN

Briefs
New Telecommunications Services Planned 17
Second Satellite Development Phase Begins 17

VIETNAM

Talks on Australian Ground Station in Final Stages
(Melbourne Overseas Service, 5 Aug 86)..... 18

CANADA

CRTC-Proposed Changes in Canadian Content Rules Examined
(Toronto THE GLOBE AND MAIL, 24, 25 Jul 86)..... 19

CRTC Proposals, by Edward Greenspon 19
Broadcast Industry Reaction, by John Haslett Cuff 20

Briefs
Satellite Pact With France 21
Vancouver Fiber Optic Link 21

EAST EUROPE

POLAND

New Controls on Ownership, Operation of Amateur Radio Equipment
(Warsaw DZIENNIK USTAW, No 19, 21 May 86)..... 22

LATIN AMERICA

BARBADOS

External Telecommunications Fiscal-Year Results Reported
(Bridgetown WEEKEND NATION, 11-12 Jul 86)..... 32

Briefs
Guyana Telecom Payments 33

BELIZE

Briefs
Telefax Service 34
Broadcasting Problems 34

BERMUDA

Senate Discusses Provisions of Telecommunications Bill
(Hamilton THE ROYAL GAZETTE, 15 Jul 86)..... 35

BRAZIL

Briefs
Informatics Delegation Departs 37

CHILE

$31 Million Accord With French Firm To Extend Electrical System
(Santiago EL MERCURIO, 25 Jul 86)..... 38

San Antonio Province Telephone System Improved
(Guerra Galaz; Santiago TERCERA DE LA HORA, 20 Jul 86)..... 40

Minister Garcia Announces Radio, Television Draft Bill
(Santiago TERCERA DE LA HORA, 13 Jul 86)..... 41

GRENADA

Briefs
Telecommunications Agreement With Canada 44

NEAR EAST/SOUTH ASIA

INDIA

Communications Minister Tells Future Plans
(Madras THE HINDU, 11 Jul 86)..... 45

U.S., French Problems Delay Satellite Launchings
(Madras THE HINDU, 14 Jul 86)..... 47

Plans for Development of Telecommunications Discussed
(Dhurjati Mukherjee; New Delhi PATRIOT, 30 Jul 86)..... 48

Movement To Set Up Rural Communications Network
(Calcutta THE SUNDAY STATESMAN, 27 Jul 86)..... 50

New Satellite Tracking Station Will Be Installed in Bangalore
(Calcutta THE SUNDAY STATESMAN, 27 Jul 86)..... 51

Briefs
INSAT 1-C Launch Plan 52
Hyderabad International Dialing 52

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

Briefs
New Radio Station 53

SUB-SAHARAN AFRICA

LIBERIA

Senate Rejects Contract to Canadian Firm
(Monrovia Radio ELWA, 25 Jul 86)..... 54

SOUTH AFRICA

Briefs
Radio Bophuthatswana Changes Frequencies 55

WEST EUROPE

EUROPEAN AFFAIRS

EEC Preparing 10-Year ISDN Plan
(Amsterdam COMPUTABLE, 2 May 86)..... 56

Nordic Countries' Tele-X Launch Delayed Following Ariane Failure
(Gote Andersson; Stockholm SVENSKA DAGBLADET, 6 Jul 86)..... 57

NORWAY

Agency Undertaking Teledata Tests
(Martin Eide; Oslo AFTENPOSTEN, 24 Jun 86)..... 59

Briefs
Digital Phone Exchange 61

SWEDEN

Diab Hopes for Increased Exports Under State Ownership
(Lennart Moberg; Stockholm SVENSKA DAGBLADET, 4 Jul 86)..... 62

/6539

CABLE TV NETWORK GETS APPROVAL FROM GOVERNMENT

Project Plans

Hong Kong SOUTH CHINA MORNING POST in English 11 Jul 86 p 1

[Article by Paul Baran]

[Text]

THE Government yesterday approved in principle the introduction of a cable television network to Hongkong's 5.4 million television viewers.

It said studies showed cable television was feasible and it would soon invite developers to submit details for a future service.

The Secretary for Administrative Services, Mr James So, said: "We feel cable television would provide an added form of visual entertainment and would be able to raise the overall standard of television programs in Hongkong."

The move stems from a proposal by the Hongkong Telephone C'o to set up the first pilot project.

Hongkong Telephone hopes to provide a system, paid for by subscribers at a rate of between $100 and $200 a month, that could carry 32 channels with programs in English, Cantonese and other languages.

"We welcome the announcement," said a Hongkong Telephone official.

"We are looking at it as a telecommunications network as well as a television network."

According to Mr So, the Government is ready to discuss other pilot project proposals with interested companies.

Since Hongkong Telephone first applied for a licence in February to set up a prototype 13-channel network in Taikoo Shing in September next year, "three or four" other companies had approached the Government, Mr So said.

He declined to name them, but said none has gone as far as Hongkong Telephone in submitting a detailed application.

Technically, he said, Hongkong Telephone "may possibly have a slight advantage over other companies" because of its existing optical fibre cable network.

But that did not guarantee it would get approval.

Mr Rod Olsen, the Far East director of Cable and Wireless plc, the parent of C and W (Hongkong) and Hongkong Telephone, said after the announcement that the Government decision to accept other applications had not deterred the company.

He said it was "up to the Government what kind of quality it wants" in a cable network.

The day before the Government announcement, the company's corporate marketing manager, Mr John York Williams, confidently predicted the application would be approved this month.

Mr So said other companies would be invited to submit applications within a month.

Approval of a pilot licence, however, was no guarantee a franchise would be awarded afterwards.

Ideally, a pilot project should run for at least a year, he said, adding that "we'd like to see it launched as soon as possible."

Mr So also said more than one franchise to operate a system could be awarded by assigning licences on a geographical basis.

Control of cable broadcast standards would rest with the Television and Entertainment Licensing Authority, he said.

The question of advertising on cable – opposed by the report of the Broadcasting Review Board – remained open.

While the Government would expect the operator to finance a cable operation mainly from subscriptions, "if they can get advertising, we will probably approve it," said Mr So.

Mr So said the Government's initial studies on cable's potential in Hongkong showed the territory was ideally suited for the concept.

Channel Bidder

Hong Kong SOUTH CHINA SUNDAY MORNING POST (Sunday Money) in English 20 Jul 86, p 1

[Article by Carolyn Leung]

[Text]

KAM Kui International Holdings will merge with a publicly-listed company in Hongkong to bid for one of the 14 cable television channels proposed in a pilot scheme by Hongkong Telephone to the Government.

Adding muscle to the company's bid for the Government nod is the fact that executive councillor and political strongman Mr Allen Lee is a director of one of its subsidiaries.

The terms of the merger have been generally agreed by both parties who will seek approval from the Securities Commmission. Citibank is acting as financial adviser.

Although Kam Kui is unwilling to disclose the name of its future partner, it is understood that the public company has a capitalisation of $48 million and is owned by a Malaysian group.

When the merger is completed, Kam Kui will hold 27 to 30 per cent of the public company and will become the majority shareholder. The founder and the chairman of Kam Kui, Dr K.K. Leung, will become chief executive.

"We have done market research on cable TV and we have discussed future co-operation with Hongkong Telephone," said Dr Leung. "If Telco's bid on cable TV project is successful, I think Kam Kui can offer a lot of studio expertise and facilities to the company."

Kam Kui also plans to operate an open university if it can acquire one of the 14 channels. Educational programs would follow the University of Manchester syllabus.

"Commercial television stations cannot afford to run educational programs because they need the advertising," said Dr Leung. "But cable TV is a perfect medium. Those who want to take the course can subscribe to the services. It is just like paying school fees"

Under the Kam Kui group, there is a member company called Kam Production Studios (KPS), of which Mr Lee, a member of the Executive Council and the now-defunct Broadcasting Review Board, is a director.

Dr Leung [illegible] to use KPS' facilities to [illegible]ne cable TV business, if he gets a channel.

He became involved in the video production industry in 1980 when approached by Mr Garie Roman, who started in the video trade in Taiwan before coming to Hongkong a few years ago.

"He convinced me to diversify into the video business," said Dr Leung. "I believe that video is a good communications medium."

Kam Production Studios also set up the first video retail chain in Hongkong. Called KPS Video Network, it was later sold to another entertainment company, VCL.

"I had to give up the KPS network," said Dr Leung. "It took too much to buy copyrights. We wanted to buy high-quality videos from overseas and duplicate them using our own studio facilities.

"If we wanted to do it legitimately, we had to spend a lot of money on copyright before we could have a proper library of video tapes."

/9274
CSO: 5540/098

BROADCASTING REVIEW BOARD'S PROPOSALS UNDER ATTACK

Hong Kong SOUTH CHINA SUNDAY MORNING POST, in English 13 Jul 86 p 3

[Article by Ann Quon]

[Text]

THE Government is drawing up recommendations on the Broadcasting Review Board report that will see some of its more controversial proposals either scrapped or watered down.

Among the proposals expected to be shelved are the independence of Government-run Radio Television Hongkong (RTHK) and a television ban on tobacco advertising.

This is despite overwhelming public support in favour of a BBC-style broadcasting station and strong pressure from the anti-smoking lobby to black out all tobacco advertising.

These two issues alone generated the most debate during a five-month public consultation period that split the community and drew one of the biggest responses yet to any Government-sponsored report.

Although the independence of RTHK was overwhelmingly supported by the public, views were divided on how it should be financed.

It is the lack of consensus behind financing that the Government is expected to use to justify keeping RTHK the way it is.

The thinking is that while RTHK will not be financially independent, there will be an assurance that it will be allowed to maintain its existing editorial independence.

The authorities however, expect to have more support for a proposal to reject a total ban on tobacco advertising, based on public opposition to the review board recommendation.

In an attempt to appease the influential anti-tobacco lobby, the Government will instead propose to extend the number of prime-time hours where tobacco ads are prohibited.

This will also prevent the move from being put on a collision course with its own anti-smoking policy.

Government proposals on the report are now in the drafting stage and are expected to go to the territory's highest policy-making body, the Executive Council, in stages over the next few months.

This is because of the vast number of recommendations in the 555-page document that have to be examined by the authorities.

It is understood the Government does not want to be rushed in its deliberations over some of the more complicated recommendations in the report, which sets out a blueprint for the future of broadcasting.

But it is understood several of the board's more minor recommendations are expected to be passed without hitches.

The decision to reject some of the more controversial recommendations in the report is based on Government thinking that as few changes as possible should be made to the broadcasting industry in the run-up to 1997.

It is understood that Lower Albert Road wants to proceed cautiously at a time when stability is of paramount concern.

It is felt that any shake-up in the industry could prove destabilising.

There have already been threats from the two commercial

television stations that any attempts to shorten the current 15-year licensing period will affect long-term planning.

The review board report has recommended that the period be shortened to eight years, subject to a mid-term review.

However, some of the more urgent issues, such as the decision on the length of television licences, which are scheduled for renewal in 1988, are expected to be put through as soon as drafting is completed.

This is to conform with the review board's wish that potential and existing licensees be given 18 months to submit applications for licences.

The decision to reject independence for RTHK will also mean the board's recommendation of giving the Government-run station access to prime-time evening hours on both of the territory's commercial television stations will almost certainly be scrapped.

Criticism of this recommendation by a small but significant minority was based on a number of reasons.

These include the belief that it would be unfair to the two commercial stations, Asia Television (ATV) and Television Broadcasts (TVB), to be forced to give valuable air-time to RTHK programs and that such a move was against the territory's free enterprise system.

However, in a bid to soften the blow, the authorities are considering a scheme that will give RTHK more leverage in determining when its programs are aired.

It is understood the Government has yet to make a decision on whether TVB should be forced to sever its links with its non-broadcasting arms.

The review board report recommended that unless it was forced to do so, TVB would continue to maintain an unhealthy advantage over the weaker ATV.

In an attempt to pre-empt the review board's recommendation, it is thought that TVB and Shaw Brothers are involved in a deal that could give the latter all the non-broadcasting interests owned by the television giant.

Sir Run Run Shaw is chairman of both Shaw Brothers and TVB.

It is understood Shaw Brothers is close to striking a deal which is said to be a rationalisation of Shaw Brothers, which is essentially involved in film production and distribution and TVB, which is a broadcaster.

/9274
CSO: 5540/098

C&W CITES PLANS TO STREAMLINE OPERATIONS

Hong Kong SOUTH CHINA SUNDAY MORNING POST (Sunday Money) in English 13 Jul 86 p 8

[Text]

CABLE and Wireless Systems, part of the giant Cable and Wireless group, has streamlined its organisation by eliminating the post of general manager and combining the original five functional divisions into four.

The major changes occurred at the top management level where Mr Bob Deslongrais has replaced Mr Noel Newton as the chief executive of the company.

Before coming to Hongkong, Mr Deslongrais was general manager of Cable and Wireless in Grand Cayman in the West Indies.

Mr Deslongrais has been with C&W for 28 years and he is on the group's management board for the Far East.

Mr Newton, after spending six years with Cable and Wireless Systems in Hongkong, has been assigned to take up the position as head of international service for Cable and Wireless in Doha in the Middle East. He has been with the group for 23 years.

Mr Chris Cox, the former general manager, has also been transferred to Britain where he will concentrate on marketing. Mr Cox will not be replaced.

Cable and Wireless Systems has also revamped its organisational structure so that it can be more responsive to market demands.

The original five functional divisions — telecommunication products, public services, data communications, projects, administration and finance — have been broken down into four — marketing and services, sales, engineering and projects, and administration and finance.

"The original five divisions used to have their own marketing people, salesmen, engineers and administrators," said Mr David Wickham, head of marketing and services.

"What we have done is to pull all the marketing people from the original five divisions into one group, and all the engineers from every division into another group.

"The new divisions are more specified and efficient.

"Before the re-organisation, a customer who wanted to purchase telecommunication products and datacommunication products would have to deal with our salesmen from two divisions. Now he is required to talk to the sales division only.

"We want to create an efficient and effective one-point-contact for our customers."

Mr Wickham stressed that there was no reduction in the company's staff following the re-organisation. At present, the company has about 380 employees.

The newly-formed marketing and service division is headed by Mr Wickham; the sales division by Mr Ron Fitzpatrick; engineering and projects division by Mr Neil Montefiore and the administration and finance division by Mr George Yee.

The former manager of the now-defunct telecommunications products division, Mr Samuel Cheng left the company last month.

Mr Wickham, who arrived in Hongkong in March, used to deal with C&W's franchise business in the Caribbean. He has been with the group for 10 years.

As a divisional manager of marketing and services, Mr Wickham is responsible for establishing a corporate marketing function and managing the company's public services which include Ticketmate and the systems at the Exchange Square.

Mr Fitzpatrick, divisional manager of sales, joined C&W four years ago after spending 15 years with International Computers Ltd in Australia, Britain and Hongkong. At ICL he was responsible for sales, engineering, projects and management. But at Cable and Wireless Systems, he is mainly responsible for business management.

Mr Montefiore, senior divisional manager of the engineering and projects division, joined C&W in Britain 11 years ago and came to Hongkong in 1981 after spending a few years in Bahrain and Saudi Arabia.

Mr Montefiore also assumes the chief executive's job when Mr Deslongrais is away on business trips.

Mr Deslongrais and his four divisional managers have formed an executive committee to plan and monitor the company's developments.

"The new organisational structure gives the company enough flexibility to tackle larger projects," said Mr Wickham. "We can address the changing market demands more efficiently."

The company is looking for a marketing manager to assist the company in marketing and research areas.

/9274
CSO: 5540/098

NASDA, MITSUBISHI REACT TO REPORT ON ROCKET DEAL

OW171045 Tokyo KYODO in English 0900 GMT 17 Jul 86

[Text] Tokyo, July 17 KYODO -- The National Space Development Agency of Japan (NASDA) and Mitsubishi Heavy Industries, Thursday denied a story in a U.S. magazine which said McDonnell Douglas Corp. of the U.S. has proposed linking up with NASDA and Mitsubishi to market technology contained in Japan's latest rocket, the H-1. The U.S. weekly "AVIATION WEEK" said John F. Yardley, the president of McDonnell Douglas, has invited NASDA and Mitsubishi to join with his firm in selling rockets incorporating features of the H-1 and McDonnell Douglas' Delta rocket.

A satellite-carrying Delta was destroyed in flight earlier this year. With January's space shuttle disaster and other accidents which destroyed a U.S. Titan rocket and a French-designed Ariane, a worldwide shortage of reliable satellite-launching rockets has developed. The article portrayed the alleged McDonnell Douglas offer as a move to fill the gap by launching a new U.S.-Japan rocket, suitable for use in either country, on the world market.

NASDA, a government-backed space developer, said it has heard nothing of such an offer, which it said would involve "national policy," and would thus be out of NASDA's hands. NASDA pointed out that such a deal might have military implications, and would run counter to Japan's policy banning the export of arsenals.

A spokesman for Mitsubishi Heavy Industries, an H-1 parts maker mentioned by the U.S. weekly, said no such offer has come from McDonnell Douglas "officially." But he said since Mitsubishi and the U.S. firm have been technologically cooperating on F-15 and F-4 fighters, "it is not strange if such talks come up during casual chats between men of the two companies."

Japan's H-1 rocket, its official launch slated for August, has a Japanese-made engine system and automatic control system, though it also contains U.S.-made components, some of which have to be checked by U.S. personnel and are not accessible to Japanese scientists. McDonnell Douglas Japan Thursday told KYODO news service that the magazine article is "exaggerated and misinformed," but said the company, along with the National Aeronautics and Space Administration (NASA), has been studying the options for international technical cooperation on satellite-launching rockets.

It said the Delta-H-1 project is among the company's ideas, including a Delta-Ariane link-up. Demand for satellites from the U.S. Air Force and NASA remains high, a spokesman for McDonnell Douglas Japan said. He added that Yardley himself mentioned the idea of combining international rocket technology at a Tokyo press conference in April. But he said even if the Delta-H-1 project were possible, the resulting rocket could not fly until the 1990s, much later than the space shuttle's scheduled return to operation in 1988, making the idea basically impractical.

/9738
CSO: 5560/172

TECHNICAL PROBLEM DEVELOPS WITH H-1 ROCKET

OW151617 Tokyo KYODO in English 0823 GMT 15 Jul 86

[Text] Tanegashima Island, Kagoshima Pref., July 15 KYODO -- A launching rehearsal for Japan's new-generation H-1 rocket was discontinued Tuesday after a technical problem arose over its control system at the Tanegashima Space Center off Kyushu, the setback is expected to delay its official launch, slated for August. The reshearsal, postponed from July 11 due to bad weather, was for a technical and procedural check in preparation for the rocket's scheduled official launch slated after August 4.

But due to the halt of the preparatory rehearsal Tuesday, the launch must be postponed, according to the National Space Development Agency of Japan (NASDA), which developed the rocket. The rehearsal began at 1 a.m. and was due to last until 1 p.m., the time when the launch is due to be made.

Staff at the space center followed the detailed procedures necessary for a real launching, such as placing the rocket on the launch pad and putting in fuel, NASDA said. The trouble was found to stem from a control system for a safety valve on the rocket's tank of liquid oxygen, which did not close after being successfully opened by a command from the headquarters. The rehearsal was discontinued at noon, NASDA said.

NASDA said it would begin seeking the possible cause of the trouble Tuesday after removing the liquid oxygen from the tank.

The H-1 rocket, the latest rocket in Japan, has been developed by NASDA since 1975 and includes systems made of Japan's own technology on the second stage of its two-stage structure. The fuel system uses liquid hydrogen and liquid oxygen, the most advanced fuel used in world's leading rockets such as the space shuttle of the United States, the Arianne rocket of the European Space Agency and China's Chang Zheng III, NASDA said.

The infertial guidance and control equipment (NICE), the brain of the rocket, is also Japanese-made and automatically controls the attitude, position and speed of the rocket in flight, NASDA said.

Rockets currently used by Japan are equipped with U.S.-made parts and devices to all the rocket structures, some of which Japanese staff are not allowed to check or fix, it said.

The 34 meter long H-1 rocket is the largest rocket in Japan, but is over 10 meters shorter than the space shuttle rockets. It will carry laser beam devices for conducting geographical measurements of the earth from space, a satellite for amateur radio communications and experimental devices, NASDA said.

/9738
CSO: 5560/171

D$_\tau$VCA METHOD SUPPRESSING INTERFERENCE PULSE

ABILITY OF SUPPRESSING INTERFERENCE PULSE AND DECREASING NONLINEAR DIFFERENCE FREQUENCY OF D$_\tau$VCA (II)

Chengdu SICHUAN DAXUE XUEBAO (ZIRAN KEXUE BAN) [JOURNAL OF SICHUAN UNIVERSITY (NATIONAL SCIENCE EDITION] in Chinese No 1, 1986 pp 56-65

[English abstract of article by Long Dehao [7893 1795 3185]]

[Text] It is proved that D$_\tau$VCA method obviously makes, on the basis of limiting method and blanking method, some advance in suppressing interference pulse and decreasing nonlinear difference frequency, and in blanking interference pulse, decreasing transient caused by consequent narrow band medium system. At the same time, professor W. Gosling's suggestion is justified. (Paper received 12 Aug 83.)

REFERENCES

[1] 龙德浩，四川大学学报（自然科学版），4(1985)，56.
[2] 龙德浩，四川大学学报（自然科学版），2(1982)，49.
[3] 龙德浩，四川大学学报（自然科学版），3(1985)，66.
[4] 教学手册编写组，数学手册，1979，225.
[5] 吴伯修，无线电快报，12(1975)，19.
[9] 吴伯修，无线电快报，12(1975)，21.
[7] 降低无线电接收机脉冲噪声的方法，无线电快报，4(1974)，21.
[8] 通信接收机采用射频恶灭器的脉冲噪声消除法，无线电快报，4(1974)，27.

/7358
CSP: 5500/4158

DESIGN OF 10.7M PIEZOELECTRIC CERAMIC SAW IF FILTER USED FOR FM RECEIVER

Chengdu SICHUAN DAXUE XUEBAO (ZIRAN KEXUE BAN) [JOURNAL OF SICHUAN UNIVERSITY (NATIONAL SCIENCE EDITION)] in Chinese No 1, 1986 pp 66-69

[English abstract of article by Wang Dunping [3769 2415 1627]]

[Text] This paper describes a method for designing piezoelectric ceramic SAW IF filter for FM receiver. The performance of the filters designed by the method were tested and proved to be comparable with that of foreign devices of this kind. (Paper received 16 Dec 84.)

REFERENCES

[1] Seiichi Arai, JEE 151(1979), 33.
[2] 武以立, 声表面波原理及其在电子技术中的应用, 国防工业出版社, 1983, 143.
[3] 孙 慷, 特陶第二届年会論文摘要, 1984, 120.

/7358
CSO: 5500/4158

TELECOMMUNICATIONS ENTERPRISE GROUPS PLANNED

OW170744 Beijing XINHUA in English 0635 GMT 17 Jun 86

[Text] Beijing, June 17 (XINHUA)--China's posts and telecommunications departments plan to organize 10 groups of enterprises to develop lateral economic cooperation and increase their competitiveness.

According to the Ministry of Posts and Telecommunications, four groups focusing on microwave telecommunications, telephone exchange, connectors and television communications have been established already.

The rest, including optical-fiber digital communications, cable transmission, ultra-high-frequency communications, rural telephone communications, mail facilities and office automation, will be set up before the end of this month.

The program coincides with what Premier Zhao Ziyang said at the annual session of the National People's Congress earlier this year. He urged "special efforts to promote lateral economic ties among enterprises." He added, "Groups of enterprises will gradually be established in different forms and at various levels, and this will serve to rationalize the enterprise structure, the development of resources, the use of funds and technology, and the disposition of productive forces."

A spokesman for the ministry said that the 10 groups will have a strong technological and manufacturing capacity. For example, since its establishment, the microwave telecommunications group has attended 11 international communications construction biddings and won four of them.

He said that the microwave telecommunications group consists of 10 enterprises. In recent years, its products have taken up 90 percent of the domestic market in this field. The group has laid 40,000 km of microwave cables for telecommunications, water conservancy and electric power, petroleum, and broadcasting and television departments.

In addition, the group has completed 130 microwave telecommunications projects--90 percent of the national total--including the telecommunications networks of the Daqing and Changqing oilfields, and a Shanghai power grid.

/6662
CSO: 5500/4161

SATELLITE EDUCATIONAL TV CHANNEL PLANNED

OW281102 Beijing XINHUA in English 1051 GMT 28 Feb 86

[Text] Beijing, 28 Feb (XINHUA)--Experimental broadcasts will begin 1 July on China's first educational satellite TV channel, the State Education Commission said today.

The channel, expected to begin 24-hour operation 1 October, will concentrate on adult education and on vocational training courses for middle and primary school teachers and other workers, commission officials said.

Courses for teachers are designed to improve the level of 2.4 million unqualified middle and primary school teachers as China works to make nine-year compulsory education universal, they said.

These courses will be broadcast 11 hours a day. Adult education courses will be broadcast six hours a day. The rest will be devoted to secondary school vocational courses.

A TV educational coordinating group will be set up to administer and set policy for the new educational network, commission officials told a national conference on the channel that ended here today.

At the meeting, local officials were asked to build new relay stations in time for the trial broadcasts.

Commission officials also said they would develop a TV education center to produce programs and compile teaching materials for the satellite channel.

/0662
CSO: 5500/4161

CHINA'S LONGEST COAXIAL CABLE NOW IN OPERATION

OW021102 Beijing XINHUA in English 1051 GMT 2 Mar 86

[Text] Wuhan, 2 Mar (XINHUA)--China's longest coaxial cable, linking Beijing and five provinces, officially went into operation yesterday after being checked and accepted by state officials.

The 1,800-channel and 2,702 km carrier runs from Beijing through Hebei, Henan, Hubei, Hunan and Guangdong provinces, crossing the Yellow, Yangtze and other rivers.

"The cable will ease the long-distance telecommunication shortage between Beijing, Wuhan, capital of Hubei Province, and Guangzhou, capital of Guangdong Province. It will also increase the communication capacity by 81 times," said Yang Taifang, minister of posts and telecommunications, at the meeting approving the cable in this capital of Hubei Province.

Direct dialing is now possible through the cable, which was built from September 1976 to August 1985 and cost a total of 400 million yuan.

Yang, also the chairman of the state examination and acceptance committee, said, "The quality of the cable is up to the advanced level of similar projects abroad."

The cable and support facilities were all made and laid by Chinese technicians. The project went into operation 28 months ahead of schedule and saved more than 10 million yuan in investment by the state.

China's posts and telecommunications still remain backward, compared to developed countries, and priority is being given to the development of telecommunications, transport and energy development.

/6662
CSO: 5500/4161

BRIEFS

ELECTRONIC PAGING SYSTEMS--Beijing, 2 Jul (XINHUA)--Beepers and other electronic paying devices have come of age in China, spreading this year from Beijing, Guangzhou and Shanghai to Hangzhou, Nanjing, Shenzhen and six other cities, government officials said here today. In addition, officials of the Ministry of Posts and Telecommunications told XINHUA that electronic paying systems will soon be used in Changchun, Dalian, Qingdao, Shenyang, Tianjin and Zhengzhou. By June 1987, such systems should be in place in another 15 cities, the officials said, and the number of beeper users will grow from more than 9,000 now to 35,000. An electronic paging system was first used within China during the 1983 national sports games in Shanghai. "It was a great convenience," a ministry official said. "People raved about the system, especially doctors, reporters and security guards." Beijing began using electronic paging in November 1985. In seven months, the number of users in the city has increased to more than 1,000. To meet the growing demand, a company will soon be established to oversee the paying business, officials said. Also this year, they said, China will import another 25,000 beepers and organize domestic mass production of beeper equipment. [Text] [Beijing XINHUA in English 1356 GMT 2 Jul 86 OW] /6662

HAINAN SATELLITE RELAY OPERATIONS--Three satellite relay stations have gone into operation on Hainan Island, enabling most TV viewers there to receive direct broadcasts of China Central TV programs. One station went into operation in the Southern Island's capital of Haikou Tuesday. The other two began operating in Qionghai County and at a state farm late last month. Previously, Central TV programs had to be recorded in the Guangdong provincial capital of Guangzhou, then sent to the island on video tapes the next day. The relay stations have been built with funds raised by local authorities and businesses, a Hainan official said. Homes on 95 percent of the island can now pick up TV broadcasts. [Text] [Beijing CHINA DAILY in English 6 Feb 86 p 2 HK] /6662

OVERSEAS MAIL SERVICE VIA FACSIMILE--Shanghai, 24 Feb (XINHUA)--The postal delivery time for letters between Shanghai and Tokyo will be shortened to six hours from 1 March, as facsimile transmitters will go into operation on that date. At present it takes at least two or three days for air and sea mail between the two cities. Letters will be transmitted by facsimile at the local post office, with copies arriving at the other end almost immediately. The letters will then be sealed in envelopes and addressed. Facsimile transmitting is particularly suitable for delivering certificates, contracts and documents. [Text] [Beijing XINHUA in English 0705 GMT 24 Feb 86 OW] /6662

OPTIC FIBER PHONE LINE--[By staff reporter Zhang Chuxiong] Guangzhou--The first optic fibre telephone cable imported from AT&T International East Asia Inc. of the United States, will be installed in the Zhuhai Special Economic Zone, Guangdong Province. Li Yisheng, deputy director of the Post and Telecommunication Administrative Bureau (PTAB) of Guangdong, told CHINA DAILY that the 53-kilometre cable, a special design including extra protection design including extra protection against damage, is to be installed in the junction network of Zhuhai PTAB. Each pair of single mode fibres will accommodate up to 480 simultaneous telephone conversations. Li said that in addition to supplying the cable and associated apparatus, the American company will be responsible for site survey, installation supervision and training. When the project is completed by the end of this year, Zhuhai's telephone links with Hong Kong and Macao and China's major cities will be much improved, the deputy director said. [Text] [Beijing CHINA DAILY in English 20 Jun 86 p 2 HK] /6662

'COMPUTERIZED TEXT' OVER SATELLITE--Beijing, 28 Jun (XINHUA)--Chinese scientists have sent a computerized text from Beijing to Kunming in the southwest and from Beijing to Urumqi in the northwest via satellite, the PEOPLE'S DAILY reported today. The transmission, of a text in Chinese characters, follows successful transmission of radio and television programs and telephone signals through satellites made in China, the paper said. Since the 1950's, Chinese rockets have launched 18 satellites, including two that are still in orbit and seven that have been recovered. [Text] [Beijing XINHUA in English 0555 GMT 28 Jun 86 OW] /6662

JIANGSU COUNTRY TV STATION--Nanjing, 3 Jul (XINHUA)--Another television station at county level started official operation this week for rural residents in Shazhou County in east China's Jiangsu Province. The station will offer local news and special programs such as agricultural science, besides relaying programs from China's central television station and the provincial television station, said an official of the new station. The funds for setting up this station were covered by the county itself, which produced a total industrial and agricultural output value of 3.38 billion yuan last year. Five other television stations at county level have been established since December 1984 in Jiangsu Province, which ranked first last year in industrial and agricultural output value in China. [Text] [Beijing XINHUA in English 1048 GMT 3 Jul 86 OW] /6662

REMOTE-SENSING GROUND STATION--Beijing, 8 Jul (XINHUA)--A satellite ground station for remote sensing went into operation last month in Beijing, according to the weekly SCIENCE NEWS. Remote sensing is widely used in measuring land areas and geographic conditions, forecasting weather, monitoring changes in environmental and ecological conditions, and surveying mineral resources. The station was set up at the end of May by the Chinese Academy of Sciences, with the equipment imported from the United States. It is said to be able to cover 80 percent of Chinese territory and measure the same region every 16 days, the paper said. A one-square-meter color photo made by the satellite clearly shows the scenic and historic sites of Beijing for the first time, the paper said. [Text] [Beijing XINHUA in English 0800 GMT 8 Jul 86 OW] /6662

NORWEGIAN PHONE EXCHANGE CONTRACT--Standard Telefon and Kabelfabrik A/S (STK) has signed its first contract in China. It concerns an advanced digital home phone exchange for transmission of conversation and data, valued at 6.5 million kroner. The purchaser is China's central import office--China's National Instruments Import and Export Corporation. [Text] [Oslo AFTENPOSTEN in Norwegian 11 Jul 86 p 8] 8952

SHANGHAI TELEVISION SYSTEM--The first public television relay system has been installed and has begun operating in Chongming County, Shanghai Municipality. The installation of the system has greatly improved television reception on Chongming Dao, which is far away from the urban center of the municipality. [Summary] [Shanghai City Service in Mandarin 1000 GMT 16 Jul 86 OW] /6662

NINGXIA'S YINCHUAN RADIO TRANSMITTER--Yinchuan Broadcasting Station, Ningxia Hui Autonomous Region's first grade-four medium-wave radio station, begins transmissions officially today. [Text] [Beijing Domestic Service in Mandarin 1100 GMT 1 Jul 86 OW] /6662

SATCOM EXCHANGE--Using still-image scanning and transmission techniques and satellite communications, China successfully transmitted the International Architectural Engineering Conference in Vancouver, Canada to China on 4 July, thus paving the way for remote academic exchanges via satellite communications between the two countries. [Summary] [Beijing XINHUA Domestic Service in Chinese 1059 GMT 4 Jul 86 OW] /6662

CSO: 5500/4162

BRIEFS

NEW TELECOMMUNICATIONS SERVICES PLANNED--Taipei, Jan 7 (CNA)--The Directorate General of Telecommunications (DGT) is scheduled to open three new services in 1986: a Chinese/English telex, a voice store-and-forward system, and a displayed radio paging system. The First New Service, the Chinese/English telex, has been under trial operation since last November and is scheduled to officially open in August. It will offer access to a wide range of information, including stocks, fruit and vegetable prices, traffic control, and even the news from CENTRAL NEWS AGENCY. The voice store-and-forward system will open after a trial period in the second half of this year. A subscriber is provided a rental "voice box," via which he may retrieve voice recordings from the system by telephone. Functioning like a telephone answering machine, the system allows voice recordings to be deposited by multiple subscribers. In addition, the subscriber can deposit his or her messages to other subscribers at pre-set times. Displayed radio paging is scheduled to begin at the end of this year. Users may use 12 or more numbers to send coded information displayed on an ICD screen. [Text] [Taipei CNA in English 0257 GMT 7 Jan 86 OW] /6662

SECOND SATELLITE DEVELOPMENT PHASE BEGINS--Taipei, Apr 24 (CNA)--The government has set up working and consulting groups to begin research on the "2nd phase" of its satellite development project. This action is aimed at establishing a good foundation for using multifunctional satellites in the future. The "2nd phase" survey and research is expected to be completed in 1989. In his report on "Developing Satellite Communications in the ROC," given at the Eighth Board Meeting of Science and Technology Advisors, S.C. Lu, deputy managing director of Telecommunications Laboratories released a mid-stage review of the project's "1st phase" and emphasized that during the "2nd phase," the project's research groups would invite related authorities to discuss the satellite's multifunctional usage. According to the recent mid-phase report, the first satellite is going to cost about U.S.$160 million and will be multifunctional. It was also pointed out that although the nation will not experience a pressing need for satellites for another 10 to 15 years, preliminary research and development must be started now. [Text] [Taipei CNA in English 0311 GMT 24 Apr 86 OW] /6662

CSO: 5500/4163

TALKS ON AUSTRALIAN GROUND STATION IN FINAL STAGES

BK050940 Melbourne Overseas Service in English 0830 GMT 5 Aug 86

[Text] Australia will build a satellite ground station on the outskirts of Ho Chi Minh City to improve telecommunications with Vietnam. The Oversea Telecommunications Commission, OTC, is in the final stages of negotiating with Vietnam's communications authority to build the station at a cost of about $1 million.

The announcement was made by the minister for communications, Mr Michael Duffy, and the acting minister for foreign affairs, Senator Gareth Evans. Mr Duffy said the agreement would be the first of its kind between Vietnam and a Western country, and it would be made on an attractive commercial basis which was consistent with federal government's policy of improving bilateral relations. He said the satellite earth station would be ready for service some time next year and would supply world standard telephone, telex, and datalinks to Vietnam. While the station is being constructed, OTC has introduced a direct high-frequency radio telephone link with Vietnam.

/12858
CSO: 5500/4333

CRTC-PROPOSED CHANGES IN CANADIAN CONTENT RULES EXAMINED

CRTC Proposals

Toronto THE GLOBE AND MAIL in English 24 Jul 86 pp A1, A2

[Article by Edward Greenspon]

[Text]

Private television stations should be allowed to show more U.S. programs if they improve the quality of their Canadian fare, the federal communications regulator said yesterday.

Proposed changes to 16-year-old Canadian content rules would give broadcasters the option of reducing their Canadian quota to 50 per cent of their over-all schedules from 60 per cent, but only if they agree to maintain the proportion of their revenue spent on Canadian programming.

This would mean the same number of dollars — or more — would be going into less Canadian content, presumably improving the quality of the remaining Canadian shows, the Canadian Radio-Television and Telecommunications Commission said in releasing sweeping suggestions for reforming television regulations.

"Canadian television broadcasters must offer better, more creative Canadian programming if they want to retain their audiences in what has become a highly competitive entertainment market," CRTC chairman André Bureau said.

By showing more U.S. programs, the stations would increase their revenue and therefore have more to spend on Canadian content, he said.

Only private broadcasters would be affected. The CRTC will accept public comment on the proposed regulatory changes at a Sept. 30 hearing.

The commission's proposals touch on areas ranging from the establishment of community television stations in remote and underserved areas to the removal of advertising prohibitions on birth control products and treatments for venereal disease.

But the main thrust of the CRTC package is to find ways to make Canadian programming more popular with the viewing public.

Stations will lose audiences to a wide array of new televised services and home entertainment alternatives if they fail to raise the quality of their product, Mr. Bureau said.

Broadcasters already are getting the message and devoting additional resources to Canadian programs, he said. "That is a definite trend because more and more broadcasters feel they have to have some exclusive programming to retain their audiences."

The commission is trying to offer support for this development in its new proposals rather than presenting an obstacle by sticking to outdated rules, he said.

The definition of local programming, for instance, is being modified to allow a group of stations to band together to produce more expensive shows. Another change would give local broadcasters access to financing from Telefilm Canada, a Crown corporation that invests in film and television production.

International co-productions involving Canadian producers also would have an easier time gaining CRTC recognition as Canadian programs.

The Canadian content proposal would allow individual broadcasters to choose whether to stay at the current 60 per cent level or move to the new formula. The 50 per cent prime time requirement is not affected, so that any additional foreign programming would be in off-peak hours.

"It introduces the kind of flexibility that broadcasters would like to have at their disposal," said William Roberts, vice-president of television for the Canadian Association of Broadcasters.

"Some may use it this year. Some may, but not two years from now. Some may never use it."

The Canadian content changes would make it easier for broadcasters to sell programs in foreign markets, Mr. Roberts said.

"I think this represents a significant and exciting package of proposals that will lead this country's broadcasting system into the 21st century," he said.

Broadcast Industry Reaction

Toronto THE GLOBE AND MAIL in English 25 Jul 86 p A14

[Article by John Haslett Cuff]

[Text]

THE NEW regulations proposed for the television industry this week are viewed as premature, inappropriate and potentially harmful by a number of broadcast professionals. The Canadian Radio-Television and Telecommunications Commission released its "Proposed Regulations Respecting Television Broadcasting" Wednesday, and while the proposals generated some optimism in the private sector, serious concerns remain.

The main issue is the CRTC's plan to give broadcasters the option of reducing their Canadian content to 50 per cent from the current 60 per cent, providing they maintain the proportion of revenue spent on Canadian programming. Private broadcasters will be able to cut back on the Canadian content of their daytime programming, enabling them to buy more lucrative foreign programs. With the increased income, they will be expected to invest more in quality Canadian television shows.

The proposal is "a bit of a mixed blessing," says Ted Riley of Atlantis Films Ltd. "Any reduction in Canadian content is dangerous, but more money to individual programs is welcome." Riley also questioned the report's underlying philosophy that "Canadian programs don't make money. That's negative," he says, "and it seems to be the view of private broadcasters. But we're in the business of making programs that will make money, not just fill Canadian content quotas."

It's "dubious" to think that investing more money in a reduced volume of Canadian content will result in better quality programming, independent producer and television distributor Stephen Ellis says. "I'd argue that there is nothing to prevent more investment under the present scheme. Telefilm Canada's Broadcast Fund has had more impact in the past couple of years than the CRTC has since 1968."

Dave Mintz, president of Global Television, says the proposals mean "we will be able to generate more dollars out of the daytime schedule and be able to spend more money on higher-quality mid-evening Canadian shows. The possibility of being able to make more money from daytime will result in better prime-time TV."

But "from a distribution point of view, this will tend to flatten the after-market for Canadian re-runs, which is too bad," says Ellis, pointing out that traditionally, television's highest profits come from syndicated re-runs. There is some concern also that the greater flexibility and degree of self-policing suggested in the proposals are not a positive development. "I'm afraid to let anyone police themselves," author Pierre Berton says. "While I agree with the spirit of the regulations, private broadcasters have a history of not paying attention to the CRTC."

Adds Ray Stringer, a spokesman for the Alliance of Canadian Television and Radio Artists (ACTRA): "In practice, there are always some deviations (in self-regulation). Traditionally, private broadcasters have not evinced a desire to spend more money on Canadian content," he says.

Most observers also question the timing of the CRTC's proposal, particularly since three Canadian networks — CBC, CTV and Global — will be required to renew their five-year licences in the fall, and also because no one knows what is in the massive, forthcoming report of the Task Force on Broadcasting, which may recommend changing all the rules. "It's a little bizarre that the government is pursuing a complete overhaul of the Broadcasting Act, yet the CRTC presumes to make these decisions without knowing what's in the report, because their mandate may be changed," Ellis says.

Even the optimism of private broadcasters is tempered with caution. "There has to be some consultation, some fine tuning," Global's Mintz says. "The way it's worded now, it would seem to reward failure. All those broadcasters that have done little in the way of Canadian content will have a lower percentage of total expenditure. Those of us who have gone all out will be penalized because our percentage will be higher."

The CRTC is inviting comments from the public to be submitted on or before Aug. 29. A public hearing will be held in Hull, Que., Sept. 30.

/9274
CSO: 5520/95

BRIEFS

SATELLITE PACT WITH FRANCE--Canadian and French officials signed two agreements Thursday allowing Canada to start monitoring and using data from a new remote sensing satellite launched in February. The sophisticated resource satellite, launched by the French firm SPOT Image, can photograph objects as small as 10 metres in length in stereoscopic detail. The process involves taking multiple pictures from different angles and combining them to create a three-dimensional image. The data is useful in map making and has potential applications for agriculture, mining and forestry. Data from the satellite will be recorded by a new ground station which opened in May in the Gatineau Hills and another station in Prince Albert, Sask. [Text] [Ottawa THE CITIZEN in English 25 Jul 86 p A5] /9274

VANCOUVER FIBER OPTIC LINK--B.C. Telephone has established a $1 million fibre optic telephone network in downtown Vancouver, and the Bank of Montreal in the Bentall Three building is B.C. Tel's first customer. The system links 11 buildings with fibre optics—tiny threads of glass with information capacity 10,000 times greater than copper wire. Fibre optics-based systems give large businesses communications systems with high capacity, private line services and an ability to accommodate future technological growth, B.C. Tel said in a release. [Text] [Vancouver the SUN in English 2 Jul 86 p E3] /9274

CSO: 5520/95

NEW CONTROLS ON OWNERSHIP, OPERATION OF AMATEUR RADIO EQUIPMENT

Warsaw DZIENNIK USTAW in Polish No 19, 21 May 86 item 99 pp 254-258

[Executive Order of the Minister of Communications, dated 25 April 1986, on Specific Rules Governing the Issuance of Licenses for the Ownership, Installation, and Operation of Amateur and Experimental Radio Equipment, the Conditions Under Which Such Equipment May Be Operated, and Agencies With Jurisdiction in Such Matters]

[Text] Chapter 1

General Regulations

Article 1. 1. Amateur radio equipment is transmitting, tranceiving or receiving radio equipment used in amateur radio service, the operation of which is neither of an occupational nature nor compensated.

2. Amateur radio equipment are:

1) personal transmitting and tranceiving radio equipment (including low-power remote-control and radiotelephone radio equipment), henceforth called "personal radiostations," owned and operated by natural persons;

2) transmitting and tranceiving radio equipment owned and operated by amateur radio clubs, henceforth called "club radiostations;"

3) receiving radio equipment owned and operated by natural persons and clubs intended only for monitorings in the frequency ranges and channels allocated for amateur radio service.

Chapter 2

Licenses to Own, Install and Operate Amateur Radio Equipment

Article 2. 1. Four categories of licenses for owners and operators of amateur receiving and tranceiving radio equipment are established:

1) a category I or category II license holder can own and operate amateur radio equipment designated on the license and designed for operation in the:

a) hectometric (middle), decametric (high), metric (ultra high) and higher frequency ranges (category I);

b) metric (ultra high) and higher frequency ranges (category II);

2) a category III or category IV license holder can own and operate amateur low-power radio equipment designated on the licenses and designed for operation in the 27.12 MHz +/- 0.6 percent frequency range and other established frequency ranges subject to interference and used for:

a) remote control (category III);

b) mobile radiotelephone communications (category IV).

2. A license, henceforth called a "monitoring license," is required to own and operate receiving radio equipment designed exclusively for monitorings.

Article 3. 1. A natural person can obtain category I and category II licenses to own and operate a personal radiostation who:

1) is at least 14 years old;

2) has the written permission of his parents or legal guardians if he is less than 18 years old;

3) is a member of the PZKC [Polish Short-Wave Radio Operators Union];

4) possesses a proper certificate of ability (a document attesting that the person has the necessary qualifications) issued by the PIR [State Radio Inspectorate];

5) was not judicially punished.

2. Licenses are issued to active-duty military personnel or Ministry of National Defense personnel after the approval of the authorized military organ is also obtained.

Article 4. 1. A natural person possessing a legitimate identity card can obtain category III and category IV licenses to own and operate low-power amateur radio equipment and who:

1) is at least 14 years old;

2) has the written permission of his parents or legal guardians if he less than 18 years old.

2. A foreigner may not obtain a category IV license.

Article 5. 1. A PZK club or a club registered with the PZK may obtain category I and category II licenses to own, install and operate a club radiostation.

2. The director of a club radiostation and persons authorized to conduct training in radiostation operation (responsible operators) as well as persons working independently in a radiostation must:

a) be at least 18 years old;

b) have a personal category I or category II license or a proper operator authorization.

Article 6. 1. The following operator authorizations are established:

1) class A - authorizing independent operation as an operator of a club amateur radiostation having a category I license;

2) class B - authorizing independent operation as an operator of a club amateur radiostation having a category II license.

Article 7. 1. A natural person can obtain operator authorization who:

1) is at least 18 years old;

2) is a PZK member;

3) has a proper certificate of ability issued by the PIR;

4) was not judicially punished.

2. Operator authorizations are issued to active-duty military personnel or Ministry of National Defense personnel after the approval of the authorized military organ is also obtained.

Article 8. The Main Inpsector of the PIR establishes the scope of knowledge required to obtain a certificate of ability and the procedures for verifying this knowledge and issuing certificates.

Article 9. 1. The PIR issues category I or category II licenses to own, install and operate personal or club radiostations, as well as class A or class B operator authorizations.

2. The licenses or operator authorizations discussed in paragraph 1 are issued after information is obtained about the club or person applying for them at the proper organ subordinate to the Ministry of Internal Affairs; this organ provides information pertaining to the security of the State and public order.

Article 10. 1. The application for issuing the licenses or authorizations discussed in article 9, paragraph 1 should be submitted to PIR district inspectorates via the PZK.

2. The Chief Inspector of the PIR establishes the list of additional documents required when applying for licenses or authorizations and the procedures for issuing licenses and authorizations.

Article 11. 1. A monitoring license can be issued to each PZK member not having a personal category I or category II license or a class A or class B operator authorization, and to each PZK club or club registered with the PZK.

2. Monitoring licenses are issued collectively by PIR district inpectorates on the basis of lists of names presented by the PZK.

Article 12. 1. The PIR can refuse to issue the licenses or operator authorization discussed in article 9, paragraph 1 if:

1) the applying individual does not meet the conditions specified in articles 3, 5 and 7;

2) the equipment for which the license is sought does not conform to the specified technical requirements;

3) the security of the State or public order is compromised.

2. Refusal to issue a license or operator authorization for reasons of state security or public order does not require justification.

Article 13. 1. A foreigner temporarily abiding in Poland may be issued the following licenses for a time period not exceeding the timne of the uninterupted visit:

1) a category I or category II license to own, install and operate a personal amateur radiostation;

2) class A or class B operator authorization.

2. The license or operator authorization discussed in paragraph 1 may be issued to a foreigner if:

1) he posseses a radio amateur license issued by the country of which he is a citizen or by the territory in which he resides permanently, with the exceptions of conditions specified in article 3, paragraph 1, items 3 - 5; and article 7, paragraph 1, items 2 -4.

2) he does not possess a radio amateur license but does possess a certificate of ability based on the rules established for Polish citizens, with the exception of the conditions specified in Article 3, paragraph 1, items 3 and 5; and article 7, paragraph 1, items 2 and 4.

3. A foreigner submits an application for the licenses or operator authorizations discusses in paragraph 1 to the Chief Inspector of the PIR via the Main Administration of the PZK. The application should contain the folowing information:

1) personal data and information on the time and purpose of the visit to Poland;

2) the kinds and types of amateur radio equipment, including their basic technical parameters, he will be using;

3) the equipment manufacturer and part numbers;

4) the address where the equipment is installed as well as the approval of the owner of the premises, object or immovable property on which the equipment will be installed.

4. A license or operator authorization issued to a foreigner is valid only on the territory of the Polish People's Republic and must be returned to the issuing organ before departure from the Polish People's Republic.

Article 14. The fee for issuing licenses or operator authorizations or for using amateur radio equipment are regulated by separate regulations.

Article 15. 1. The licenses and operator authorizations discussed in this decree can be revoked or suspended for a specified time by the PIR:

1) if the regulations of this decree are violated;

2) if the conditions specified in the issued license or authorization are violated;

3) for reasons of State security or public order.

2. Licences and operator authorizations become invalid:

1) after the expiration dates;

2) if the holder of a license or authorization does not inform the PIR within 7 days of a change of address;

3) if the location of the amateur radio equipment installation is changed (with regard to the license);

4) if the license or authorization is relinquished;

5) if membership in the PZK is forfeited or a club is no longer registered with the PZK;

6) if the holder of the license or authorization dies.

3. If the location of an amateur radio equipment installation is changed, temporarily or permanently, from the location designated in the license, the organ issuing the license must be notified in writing within 7 days of the change. Operation of the equipment at the new location can commence after a new license is issued.

Article 16. 1. In case a license or operator authorization is revoked, suspended or invalidated, then:

1) the equipment designated in the license must be disassembled into its component parts;

2) the license or authorization must be returned to the issuing organ within 7 days.

2. If requested by the license holder, the organ that issued the license can agree to handle the equipment in a different way than specified in paragraph 1.

3. In the event designated in paragraph 1, the organ issuing the license can secure the equipment equipment such that it cannot be operated.

Article 17. In specifically justified cases, the Ministry of Communications can agree to issue:

1) category I and category II licenses or class A and class B authorizations, less the conditions designated in article 3, paragraph 1, items 3 and 4; and article 7, paragraph 1, items 2 and 3.

2) a category IV license to a person described in article 4, paragraph 2.

Chapter 3

Conditions for Using Personal and Club Radiostations

Article 18. 1. Personal and club radiostation operators are required in their operation to adhere to the conditions specified on the license, the regulations issued by the PIR and the international radiocommunication regulations.

2. A radiostation holder (a natural person or club) is required to prevent radiostation operation by unauthorized persons, to operate the radiostation in accordance with its intended use and to possess the required technical documentation.

3. Persons in training can operate a club radiostation only under the supervision of the radiostation director or a responsible operator. A person in training is not required to be a PZK member.

Article 19. Radio contact via an amateur radiostation can be made with other Polish and foreign radiostations but not with amateur radiostations in those countries objecting to such contacts.

Article 20. 1. Radio communications between amateur radiostation holders should be conducted with undisguised text and limited to information of a technical nature in the realm of amateur service, and to the exchange of

strictly personal comments. Accepted radiocommunication abbreviations may be used during the conducted communications.

2. It is forbidden to use an amateur radiostation to transmit information that is a state or official secret, including information of a political, military and economic nature, as well as information of a propaganda and advertising nature.

3. Information concerning catastrophes, natural disasters and other threats can be transmitted via amateur radiostations if the public interest is not violated.

4. When operating an amateur radiostation, the assigned call sign must be transmitted at short time intervals not exceeding 5 minutes. For radiotelephone operation, the sign should be spelled out in its entirety; however, shortened identification is permitted if used more frequently during this time.

Article 21. Transmission by a club of radio amateur organizational news related to its statutory activities in the area of training and amateur radio activities requires PIR approval.

Article 22. A club or personal holder of an amateur radiostation must keep a radiostation operation log in which are noted the starting and ending times of each transmission, even if radio contact is not made, and the call signs of the radiostations called or contacted.

Article 23. Operating an amateur radiostation must not interfere with other telecommunication sources (including radio communication service) or imperil the environment or people's health.

Article 24. In case a radiostation is forfeited (ownership is transferred or the radiostation is destroyed, dismantled or stolen) the operator is required to inform the PIR of the fact immediately and also to inform the Citizen Militia in case of a robbery.

Article 25. The PIR controls personal, club and experimental radiostations. The Chief Inspector of the PIR can authorize a social organ selected by the PZK to do the controling.

Chapter 4

License To Own, Install and Operate Experimental Radio Equipment

Article 26. 1. Experimental radio equipment, henceforth called "experimental radiostation," is transmitting, tranceiving or receiving equipment used for scientific research or production purposes, or is associated with training in schools.

Article 27. A license to own, install and operate experimental radiostations is issued for a specified or unspecified time to scientific research

institutes, socialized plants producing radio equipment, and higher and secondary schools teaching electronics.

Article 28. The PIR issues licenses to own, install and operate experimental radiostations.

Article 29. 1. An organizational unit obtaining the licenses designated in article 27 is required to operate the radiostation in accordance with the unit's stated purpose and the conditions specified on the license and in international radiocommunication regulations.

2. The director of the organizational unit is responsible for the proper operation of the experimental radiostation, its proper use and security, and for managing the required documentation.

Article 30. The operation of an experimental radiostation may not interfere with the operation of other telecommunication services, including radio communication services, or imperil the environment or people's health.

Article 31. Fees are paid for issuing licenses and operating experimental radio equipment. Fee amounts are designated in separate regulations.

Chapter 5

Licenses To Own and Operate Low-Power Amateur Equipment

Article 32. 1. Category III and category IV licenses can be obtained to own and operate industrial production equipment that is allowed to operate on Polish territory. A license (category III only) can be obtained to own and operate equipment produced by oneself only after the PIR conducts technical tests based on issuing the license to use the equipment. Th owner of the equipment must pay the costs of the test.

2. It is forbidden to change any technical parameter of equipment for which a category III or category IV license is issued.

Article 33. 1. The producer or importer of experimental equipment for sale and operation on Polish territory is required to affix a booklet of license form blanks to own and operate low-power amateur radio equipment as well as operating instructions to every radiotelephone capable of transmitting up to 150 mW, to every radiotelephone set (two items) and to every remote control radio equipment.

2. The seller of low-power amateur radio equipment can give the equipment to the buyer only after the buyer obtains a license to own and operate this equipment at the postal and telecommunications office.

3. The Chief Inspector of the PIR establishes the design for the booklet of license form blanks.

Article 34. The PIR issues a license to own and operate radiotelephones having transmitter power greater than 150 mW (category IV) in accordance with

the rules designated in article 4 to a natural person who has not been judicially punished, after obtaining information about the person applying for the license at the authorized organ subordinate to the Ministry of Internal Affairs (article 9, paragraph 2).

Article 35. 1. The PIR issues licenses (category IV) to own and operate low-power radiotelephones imported form abroad regardless of transmitter power.

2. The PIR conducts technical tests on the telephones discussed in paragraph 1 to determine if their technical parameters are in accordance with Poland's mandatory regulations. The owner of the radiotelephone pays for the tests.

Article 36. A license to own and operate low-power amateur radio equipment can be revoked or suspended for a designated time and the equipment secured by the PIR at any time the obligatory regulations are violated, that is, the equipment is operated not in accordance with its intended use or with the conditions specified on the license, or the equipment is changed, or the security of the State or public order is threatened.

Article 37. 1. The operator of a low-power radiotelephone is responsible for the content of the conducted communications.

2. The communications should be:

1) conducted openly;

2) limited to strictly personal matters.

Universally accepted radiocommunication abbreviations are allowed to be used.

3. The assigned call sign must be transmitted at short time intervals while communicating.

4. It is forbidden to transmit information that is a state or official secret, including information of a political, military and economic nature, as well as information of a commercial, propaganda and advertising nature.

Article 38. 1. Operation of low-power amateur radio equipment may not interfere with the operation of telecommunication equipment.

2. Operation of low-power amateur radio equipment in workplaces, offices, institutions, seaports, airports and railroad stations is forbidden.

Chapter 6

Appeals

Article 39. 1. A decision of a PIR regional inspectorate concerning the issuance of the licenses and operator authorizations discussed in article 9, paragraph 1; and article 28 and 34, can be appealed to the PIR Chief Inspector via the authorized PIR regional inspectorate within 14 days after the decision is made.

2. the decison of the PIR Chief Inspector is final.

Chapter 7

Temporary and Final Regulations

Article 40. Licenses and operator authorizations issued prior to the date the decree is effective to persons fulfilling the conditions designated in the decree are valid.

Article 41. The decree is effective the day it is announced.

Minister of Communications: W. Majewski

11899
CSO: 5500/3011

EXTERNAL TELECOMMUNICATIONS FISCAL-YEAR RESULTS REPORTED

Bridgetown WEEKEND NATION in English 11-12 Jul 86 p 1

[Text]

BARBADOS EXTERNAL TELECOMMUNICATIONS (BET) recorded a profit of $11.6 million this year.

And shareholders are to receive a whopping $7.9 million in dividends — 29.4 percent more than the $6.1 million paid out last year.

According to the company's financial report for the year ending March, 1986, BET showed a profit of $11 646 000, a 24 percent increase over the $9 395 000 which was made last year.

Chairman Chesterfield Thompson in a statement said a major factor which has contributed to the company's performance is improvement in economies of the main markets of North America and Britain.

Acknowledging the negative growth in some major sectors of Barbados' economy and a worsening of the country's unemployment situation, Thompson described the company's performance as "creditable".

He said no less than 66 percent of BET's total net revenue was derived from telephone, telex and other communications.

He stated that the company maintains a policy of close cooperation with oversees administrations in providing efficient services and in stimulating consumer demand in those markets, but added there was no room for complacency.

To this end, Thompson said an agreement has been made with Digital Equipment Corporation (DEC) of the United States to market its products in Barbados and the Eastern Caribbean.

He noted that a facsimile service was introduced to serve primarily the commercial sector and that the International 800 telephone service is now available in both directions between Barbados and the United States.

He also pointed out that Reuters Financial Service, providing up to date financial information to the commercial sector, was launched.

Thompson said the company, in its commitment to providing and maintaining an international telephone service of high quality, installed a new international telephone digital switch at a cost of $7.5 million.

/12828
CSO: 5540/099

BRIEFS

GUYANA TELECOM PAYMENTS--BARBADOS has started to receive repayments of the $1.2 million debt owed by Guyana for telecommunication services. General Manager of Barbados External Telecommunications (BET), Peter Holland, said the sister CARICOM state paid back $100000 this week and promised to repay the balance. "We received approximately $100000 earlier this week and arrangements were made for further payments," he said. Holland said no time frame was set for the overall repayment but he anticipated that over the next six months "a very substantial portion of the debt should be paid". The money was accumulated mainly through telephone calls but some is also owed for telex and telegram services. [Text][Bridgetown WEEKEND NATION in English 11-12 Jul 86 p 1]/12828

CSO: 5540/099

BRIEFS

TELEFAX SERVICE--Cable & Wireless PLC announces the opening of a Telefax Agency from their offices at Bishop Street, Belize City and Bliss Parade, Belmopan. Telefax is an international facsimile service which uses the telephone system to transmit and receive documents and drawings. Documents of letter and legal size can be handed in at Cable & Wireless offices for transmission to any overseas correspondent who has a facsimile machine. Customers are charged for the international telephone call plus a $5.00 service fee. The minimum telephone charge is for 3 minutes. To send a document to the U.S.A., the charge would be for the 3 minute call, $9.60, plus the service fee of $5.00 making a total of $14.60. Documents can also be sent to the Agency from overseas. On reception the Agency will contact the adresses. For further details please call Cable & Wireless PLC, Telephone Belize City 45123, Extension 225. [Text][Belize City THE REPORTER in English 13 Jul 86 p 13]/12828

BROADCASTING PROBLEMS--More and more, concern to the point of anxiety is being expressed by the people of Corozal concerning the performance of our national broadcasting system. Finding themselves in the heart of the hurricane season, they wonder about the poor reception of Belize Radio One and FM radio. The trouble is that the auxiliary transmittor that the Broadcasting Department installed in Corozal some years ago is not serving its intended purpose - that of retransmitting the main transmissions from the studios in Belize City. Instead, the transmittor is now transmitting FM programs and transmission begins at 10:00 a.m. And the transmission is extremely poor. In the meantime, the transmission from Belize Radio One is so poor that it is virtually non-existent. All that is received is frying, hissing, and crackling, and only an unintelligible mumble from the announcer. It is almost impossible to hear the news or the weather reports. Corozalenos believe that something ought to be done urgently to correct this situation. [Text][Belize City AMANDALA in English 25 Jul 86 p 5]/12828

CSO: 5540/100

SENATE DISCUSSES PROVISIONS OF TELECOMMUNICATIONS BILL

Hamilton THE ROYAL GAZETTE in English 15 Jul 86 p 6

[Text]

Opposition **Senator Alex Scott** yesterday said he was pleased Government had "formally recognised that wiretapping goes on in Bermuda" by including guidelines on wiretapping in its Telecommunications Bill.

The provision of those guidelines, he said, proved that allegations of wiretapping members of the Opposition had made over the past few months were in fact justified.

Legislative Affairs Minister Sen. the Hon. Charles Collis, who introduced the Bill, said Bermuda's 13-year-old existing telecommunications laws were out of date and needed modernising.

The new legislation would control telecommunications by wire for the first time and the Act would cover the work of Cable and Wireless and the Bermuda Telephone Company.

He told the Senate a newly formed Telecommunications Commission would have the power to control services and prices, but he had already promised Telco that proposed regulations would exempt the majority of their services.

Sen. Collis said the Bill had been years in the writing.

"It's a great relief to be able to present it publicly in the Senate today," he said.

The Bill offered a framework for licensing companies or individuals who wanted to use broadcasting equipment. It made no attempt to place controls on the content of television or radio programmes.

"It doesn't in any way affect what ZBM or VSB or anyone else puts in their programmes, or how long they broadcast for, or anything else," he said.

The regulations covering content were currently being rewritten by the Broadcasting Commissioners and the Government hoped to bring them before Parliament in the autumn.

Domestic radio and television sets and other equipment, such as cordless telephones or intercoms, would not require licensing.

The Bill applied essentially to commercial broadcasting operations and to equipment used by, for instance, radio hams.

The Telecommunications Commission set up under the Bill would monitor the whole range of operations and services being provded by companies on the the Island.

Many of the operations were circumscribed by the Bill — for instance, Cable and Wireless and Telco would have a statutory duty to provide telephone services to a customer if requested.

The controversial part of the measure was section 32, which gave certain rights to cable television station owners allowing them redress if their signals were pirated by satellite dish owners.

"But this section doesn't create an offence. It's not a crime. This section only talks about civil remedies for the cable companies," he said.

The Bill preserved and even strengthened general rights to privacy and carried many provisions in existing legislation.

"It is in the interest of the public generally that this Bill should come into effect," Sen. Collis said.

Sen. Alex Scott said he was glad Government had "formally recognised that wiretapping goes on in Bermuda".

He added he was pleased to find he and his colleagues were "not all speaking of gremlins on the wire", when making complaints of wiretapping.

He was curious to know what kind of recourse a member of the public would have if they suspected someone had "an unhealthy interest in their telephone line".

And Opposition **Senator David Allen** voiced concern over giving "the final say in who gets wiretapped" to the Governor.

"Britain decides everything," he claimed.

Sen. Francis Furbert, who when pressed by Opposition Senators anounced that he had worked for the Telephone Company for many years and also held shares in it, objected to the Opposition's preoccupation with wiretapping.

Bermudians, he insisted, were honest and friendly, and "the last thing we want to do is wiretap someone's line".

Sen. Scott praised Sen. Collis for what had been a clear and detailed presentation of the Bill.

He said the Telecommunications Minister appeared to be all-powerful under the new legislation.

"The Minister giveth and the Minister taketh away. The authorities and responsibilities for licensing and so on are very clearly with the Minister," he said.

"The Commissioners appear to me to be only advisory."

Sen. Scott asked for more information on the Broadcasting Commission and its membership. What was the time-scale for setting it up, for instance?

"It seems to me we could, at any given time, find someone who happened to be a director of the Telephone Company or of ZBM also being involved in this new quango.

"It would be a very embarrassing situation for everyone," he said.

He questioned the exemptions given to United States interests under the Bill.

The Telecommunications Act was passed without objection.

/13104
CSO: 5540/097

BRIEFS

INFORMATICS DELEGATION DEPARTS--Sao Paulo--The Brazilian Government will examine all foreign cooperation projects in the field of informatics, and it will allow associations and direct investments if the projects are of great technical complexity and unattainable by national industry at its present stage of development. This will be one of the main explanations that the Brazilian delegation will give the U.S. representatives at the second round of negotiations over the Informatics Market Reserve Law, that are to be held in Paris on 11-12 August. This information was released yesterday by the secretary general of the Science and Technology Ministry, Luciano Coutinho, who recalled that the Special Secretariat of Informatics (SEI) receives many informatics projects from foreign companies and that Article 22 of the Reserve Law allows their approval if the technological development conditions are met. In Brasilia, the Brazilian delegation headed by Itamaraty Secretary General Paulo Tarso Flecha de Lima is leaving today for Paris to participate in the second meeting on the Reserve Law with representatives of the U.S. Government. This time the talks will deal with a document that the U.S. delegation will present that lists 26 reservations pertaining to the Informatics Law. [Text] [Rio de Janeiro O GLOBO in Portuguese 9 Aug 86 p 19 PY] /9738

CSO: 5500/2078

$31 MILLION ACCORD WITH FRENCH FIRM TO EXTEND ELECTRICAL SYSTEM

Santiago EL MERCURIO in Spanish 25 Jul 86 p C5

[Text] The executive president of CODELCO [Copper Corporation], Gen Rolando Ramos, retired, yesterday signed a contract with the French firm COGELEX-ALSTHOM for a project to expand the Tocopilla-Chuquicamata electrical system.

The French firm won the turnkey contract, which is valued at $31.1 million, in an international bidding that CODELCO had called.

CODELCO reported in a press release that the project involves the construction of the facilities needed to increase the capacity of the power line between Tocopilla, Crucero and Chuquicamata, so as to meet the future energy demand stemming from the development projects of the Chuquicamata Division.

It also calls for the linkup of the power lines in this division with the EDELNOR line, thus forming the Interconnected System of the Greater North (SING).

The hookup with the EDELNOR power line will take place at the Crucero Substation, which EDELNOR will build and own.

The contract with COGELEX-ALSTHOM includes the provision and setup of a 220-kilovolt dual-circuit transmission line that will run about 142 kilometers from the Tocopilla Thermoelectric Power Plant to the Chuquicamata mine.

It also calls for the provision and construction of a 220/110 kilovolt substation at Chuquicamata. The substation will make possible the linkup of the 220-kilovolt power lines with the existing facilities at Chuquicamata; it will consist of 220- and 110-kilovolt switchgear and control equipment, insulated in SF6 gas, and two 120-MVA autotransformers.

The contract also includes a supervisory control and data acquisition system (SCADA system) that consists of two interconnected modules, one to be installed at the Tocopilla Thermoelectric Power Plant and the other at Chuquicamata.

The project timetable calls for the 220-kilovolt power line between Tocopilla and the Crucero substation to go on stream in July 1987, with the remaining installations starting up in the first half of 1988.

Signing the contract were the general manager of COGELEX-ALSTHOM, Michel Drieu La Rochelle, and the executive president of CODELCO, Gen Rolando Ramos. Also present were the corporation's supply department manager, Holger Bannach, and the executive vice president of operations, Patricio Contesse.

General Ramos said that based on the reports that he has received from his technical staff, he knows that the contract is quite important, indicating that the most attractive feature is the assurances that COGELEX has given about the completion of the project, "which gives us reason to continue expanding this share."

8743
CSO: 5500/2073

SAN ANTONIO PROVINCE TELEPHONE SYSTEM IMPROVED

Santiago TERCERA DE LA HORA in Spanish 20 Jul 86 p 8

[Article by Guerra Galaz]

[Text] San Antonio--Two executives of the Chilean Telephone Company have paid a beneficial visit to our province.

Assistant general manager Edmundo Crespo Pisana and Valparaiso zone manager Enrico Gatti met with the governor of the province, Col Eugenio Videla Valdebenito, and then, accompanied by Commander Victor Lizaga, visited the large building that houses the equipment and offices of the Chilean Telephone Company in San Antonio.

They were informed by administrative manager Miss Noemi Tome that the building easily withstood last year's earthquake and the recent flooding.

After the two senior executive inspected the company's various facilities, Edmundo Crespo reported that its offices would be modernized to offer a warmer atmosphere and quicker service to customers and make them more comfortable for employees. This is "a contribution to long-suffering San Antonio," were the senior executive's exact words.

"Telephone centers will be set up at several spots around the community, to relieve the heavy congestion at the main office, especially in the summer. In addition, 'blue telephones' will be installed in Cartagena for direct dialing to Santiago, as well as 'yellow telephones' for calls anywhere in the country. If necessary, these services, which will be provided to individual subscribers, will be expanded," Edmundo Crespo added.

In conclusion, the assistant general manager said that San Antonio currently has 4,140 urban phones and 980 rural phones and that 2,000 more lines would be installed in 1987 inasmuch as there are 1,727 applications pending.

8743
CSO: 5500/2073

MINISTER GARCIA ANNOUNCES RADIO, TELEVISION DRAFT BILL

Santiago TERCERA DE IA HORA in Spanish 13 Jul 86 p 4

[First paragraph is TERCERA DE LA HORA introduction]

[Text] Yesterday Minister of Interior Ricardo Garcia released the draft bill on the National Radio and Television Council drawn up by the subcommittee for the advisory committee for Studies of Constitutional Organic Laws. He said that the bill is a major contribution for the complete institutionalization of the country.

The draft bill which has 20 articles and 6 transitory provisions will be published in detail so that citizens can make pertinent observations. These observations must be sent to this subcommittee within 30 days. The members of the subcommittee, headed by Luz Bulnes, are Gregorio Amunategui, Jaime Guzman, and Raul Bertelsen.

The comments collected by the subcommittee will then be presented to the full committee.

In a press conference, the minister indicated that he expected this legislation to be a great contribution for these mass media. It includes some amendments to the current television law.

The draft bill on the National Radio and Television Council has three sections: 1) the makeup of the National Radio and Television Council; 2) the duties and prerogatives of the National Radio and Television Council; and 3) the committees under the National Radio and Television Council.

Members

The National Radio and Television Council will be made up by: a) one member appointed by the president of the republic who will head it; b) one member appointed by the Supreme Court who must be a former minister of it or a lawyer for 15 years who is or has been a member of the Supreme Court for at least 3 consecutive years; c) one member appointed by the Senate; d) one member appointed by the National Defense Staff from among its members; and e) one member appointed by the Institute of Chile from among its members. The

council will have a secretary appointed by the majority of the active members who will be authorized to act for it.

The members of the council will serve a 4-year term and can be reappointed indefinitely.

Duties

In order to supervise the correct functioning of the mass media, the National Radio and Television Council will have the following duties and prerogatives, among others:

To raise the cultural level of radio and television broadcasting and continually improve its technical quality; to encourage and request studies on the effects of radio and television broadcasting on the inhabitants of the country.

To ask the general comptroller of the republic, public services, semigovernmental and autonomous organizations, state enterprises, radio stations, and television channels for the necessary information to fulfill its objectives. These requests for information must be met.

To grant, renew, and withdraw radio broadcasting concessions after a report from the Assistant Secretariat for Telecommunications. In order to make better decisions, the council can request other technical reports that it feels are pertinent.

Whether the radio broadcasting concessions are granted to natural persons or legal persons, they can be transferred to living persons and, when applicable, inherited. In both cases, the acquirer must receive authorization from the council to use that concession. These concessions will be granted for a term of 30 years.

To grant concessions in the same form indicated in the above provision for the operation of television stations that do not transmit free programs, whether they operate through microwave, cable, or another means that does not involve radio electromagnetic waves.

To dictate norms to keep radio and television broadcasting from harming minors.

Amendments

The bill replaces Article 30 of the current television law as follows: "The television channels authorized by Article 2 of the current law will be financed by the revenue each channel receives from contributions, services they provide, advertising they sell, and resources allocated by law."

It also replaces Article 33 of that law indicating: "When the stations that operate free television channels are permitted to have advertising during elections and plebiscites, they must allocate 1 hour a day of their transmissions to free advertising.

"During presidential elections, this time will be equally distributed among all the candidates.

"During elections for deputies and senators, this time will be distributed by the National Radio and Television Council which will watch for equal time for the political parties and the independent candidates.

"The allocation of time for each political party and the independent candidates during the entire pre-election period will be made by the National Radio and Television Council through a public lottery with schedules alternating. Each time slot allocated for this purpose will be a minimum of 5 minutes and a maximum of 15 minutes.

"During plebiscites, the television channels must allow the government and political parties with parliamentary representation to speak. Half the time will be given to the government and half to the political parties. The norms established in the previous clauses will govern where applicable.

"All television channels, whether free or not, are still prohibited from broadcasting political propaganda that is not authorized within the terms of this article."

7717
CSO: 5500/2069

BRIEFS

TELECOMMUNICATIONS AGREEMENT WITH CANADA--St Georges, Grenada, 10 Aug, CANA--Grenada and Canada have signed a 7.5 million Canadian dollar agreement to help improve the services offered by the state-owned telephone company here. The agreement was signed last week by top officials of the two governments. Grenada's Communications Minister Dr Keith Mitchell told CANA that the grant funds would be used to install a digital system at the telephone company by the end of 1988. He said the bulk of the money would be used to purchase equipment from Northern Telecom while one million dollars would go towards employing local labour in order to help ease the unemployment situation on the island. The grant would be supplemented by a 7.5 million dollar loan which the island is expected to get shortly from the Canadian export development corporation, he added. Grenada and Canada signed agreements covering one million dollars in technical support and equipment for the central garage, and 1.5 million dollars for a water sewerage project. Canada has provided financial assistance to Grenada in recent years to construct the Point Saline International Airport, and rehabilitate the vital cocoa industry. [Excerpts] [Bridgetown CANA in English 1612 GMT 10 Aug 86 FL] /12858

CSO: 5540/101

COMMUNICATIONS MINISTER TELLS FUTURE PLANS

Madras THE HINDU in English 11 Jul 86 p 9

[Text]

NEW DELHI, July 10.

The Department of Telecommunications has proposed to increase the capacity of the existing telephone exchanges in the country by about 2.8 lakh lines and provide additional net connections to the extent of 2.2 lakhs during 1986-87.

To achieve this objective detailed plans have been drawn up for each month of the year and this is being closely monitored, Mr. Ram Niwas Mirdha, Minister for Communications stated today at the meeting of the Consultative Committee of MPs attached to his Ministry.

Mr. Mirdha said that the review of the performance made for the first two months, viz April and May, indicated that the department had exceeded the targets set for these two months during which 26,740 lines had been added against the target of 24,600 and 26,160 connections had been provided against the target of 17,600. He hoped that in the current year the expansion of the telephone services would go according to schedule and the targets would be achieved.

In the field of long distance transmission, with regard to microwave, UHF, VFT and carriers, the Minister said that the department had been able to maintain the progress of installation according to the targets. There was every reason to believe that the pace of development of long distance network for the current year would meet the targets.

Two countries added to ISD: About International Subscriber Dialling (ISD), the Minister said that further progress had been made in the introduction of ISD service by adding two more countries. The number of stations from which ISD facilities were available now had risen to 71.

Mr. Mirdha said that one in-house computer, ISL 2958 had been commissioned in Calcutta recently. This was the first of the four computer systems to be commissioned in the metro cities. The cost of the project was about Rs. 3.5 crores, out of which Rs. 1.75 crores formed part of the imported equipment. With the commissioning of this main frame computer it was proposed to computerise Directory Inquiry (197), underground cable records, telephone billing and accounting, inventory control, commercial records, fault control and analysis, directory printing etc. Computers at the other three metro cities would be commissioned during the course of this year itself, the Minister said.

Incentives for operators: To increase the effective percentage of trunk calls and thereby the trunk revenue, an incentive scheme had been approved, he said. According to this scheme, the telephone operators working in Manual Trunk Exchanges would be eligible for incentive money for putting through calls beyond the average norms fixed. This would motivate them to put through more trunkcalls, thereby not only increasing the effective percentage of calls but also giving better satisfaction to subscribers.

On postal side, Mr. Mirdha said, the department was making efforts to rationalise the postal services to bring about economy without sacrificing quality. A revision of rules and procedure had been undertaken, so that postal transactions were speeded up and the cost effectiveness of the service increased.

Speed post services: To ensure guaranteed overnight delivery of letters, documents, business papers, parcels and samples, the Postal Department proposed to introduce an Inland Speed Post Service from August. To begin with, this service would be available between Delhi-Bombay-Calcutta-Madras-Ahmedabad-Bangalore and Hyderabad. It was also proposed to introduce an International Speed Post Service from India to the U.K., U.S., Federal Republic of Germany, Hongkong and Japan. The service would become operative between India, the U.K. and Hong Kong from August 1 and would be extended to other three countries shortly, the Minister said.

A new Metro Sorting Office had been opened in Delhi to deal with the mail bound for Bombay, Madras, Calcutta, Ahmedabad, Bangalore and Hyderabad. Mails posted till late in the evening in Delhi were sorted in detail by this office and included in the direct bags closed and despatched by the early morning flights to deliver them the next day. A conveyor belt had been provided at Madras Airport Sorting Office for conveying mail bags from the ground floor to the first and second floors and vice versa, he said.

/9317
CSO: 5550/0152

U.S., FRENCH PROBLEMS DELAY SATELLITE LAUNCHINGS

Madras THE HINDU in English 14 Jul 86 p 9

[Text]

BANGALORE, JULY 13.

The recent failures of the space shuttle "Challenger" and Ariane space carrier have delayed the launching schedules of the sixth series satellites of the INTELSAT system, according to Mr. D. K. Sachdev, Deputy Director (Engineering), INTELSAT.

The first satellite of the sixth series is now slated for launch by 1987 end or early 1988, Mr. Sachdev said while delivering a talk on "trends in communication satellites", organised by the Institution of Electronics and Telecommunication Engineers (IETE) and the Space Officers' Association here.

He said certain modifications were being carried out in design and fabrication of the sixth series satellites, which would have a 14-year life span, taking advantage of the delay. The last satellite of the series would be placed into orbit by 1991.

INTELSAT is a non-profit cooperative of 110 nations with its services available to all countries including non-members. India's share in its investment is little over one per cent.

Mr. Sachdev said the sixth series satellites would be larger, more powerful and enable direct reception even with smaller earth stations closer to the users. From the first series to the fifth, the mass of satellites had increased five-fold and capacity by 170 times, while the per unit service cost had reduced from $6,000 to $390 in the past 20 years.

The services hooked through the INTELSAT network had also undergone drastic changes during the past few years. For instance, he said, worldwide live telecast of the recent World Cup Soccer matches was one of the unique exercises in INTELSAT history involving services of seven satellites, a capacity four times more than that required for telecasting the Olympic Games.

The INTELSAT board had recently decided on expansion of services to smaller earth stations, evolving of earth station standards and distribution of space segment. The aim was to provide direct and equal access to users anywhere in the world at an equal cost.—PTI

/9317
CSO: 5550/0153

PLANS FOR DEVELOPMENT OF TELECOMMUNICATIONS DISCUSSED

New Delhi PATRIOT in English 30 Jul 86 p 4

[Article by Dhurjati Mukherjee]

[Text]

The crucial role of telecommunications in various socio-economic activities such as trade and commerce, transport, education, health and defence brooks no emphasis. There is increasing recognition of the fact that a sound telecommunications infrastructure is vital for an all-round and meaningful economic development. But, in India, telecommunication services remain unsatisfactory not only in comparison with the developed but also some of the developing countries.

According to the latest available figures, while telephone availability in the US is around 83.74 per 100 persons, in Sweden 79.5, in Canada 57.2, in Japan 49.5, in Brazil 6.3 and even in Malaysia 4.4, in India the availability is as low as 0.4 per 100 persons!

A city-wise comparison would show that as against 172.7 per 100 persons in Washington, 143.8 in Paris and 128.9 in Stockholm, the availability of telephones in Bombay, our top industrial metropolis, stood at approximately 4 per 100 persons. One of the basic reasons for such a state of affairs has been neglect and poor investment in this sector, which is not even one per cent of the GDP.

In the Telecommunications Policy statement announced on 23 March 1984, the Government decided to allow the manufacture of some telecommunications equipment in the joint sector and the private sector. In such equipment that are needed in the subscribers' premises such as telephones. EPABXs, teleprinters, fascimile equipment, data communication terminals etc., 100 per cent privatisation has been permitted with the condition that private entrepreneurs would have to satisfy certain minimum conditions specified by the Centre for Development of Telematrix (CDOT) for obtaining manufacturing licences.

For other communication items, Central/State Governments will hold at least 51 per cent of the equity shares and will have the requisite power to guide the control and operations of the undertaking. An exception, however, has been made for the ESS factory at Mankapur where ITI will collaborate with Cit-Alcatel of France. Another factory will also be coming up at Gonda.

A working group on Telecommunications was set up by the Planning Commission for the seventh Plan which made its proposals in three components: (i) Expansion/modernisation proposals—proposed financial outlay for this component was Rs 12,625 crore (inclusive of an ad hoc provision of Rs 400 crore for meeting the bulk users' requirements) with a foreign exchange require-

ment of Rs 1,862 crore; (ii) Skill over component relating to sixth five-year Plan—proposed financial outlay for this component was Rs 725 crore with a foreign exchange requirement of Rs 225 crore; and (iii) Improvement component for immediate metro upgradation programme not included in (i) above—financial outlay for the component was Rs 298 crore with a foreign exchange requirement of around Rs 131 crore.

The Planning Commission has drastically cut the Plan outlays proposed by the Working Group and fixed the outlay for telecommunications sector in the seventh Plan at only Rs 4,010 crore. However, there has been admission of the fact that a much higher level of investment may have been essential so that telecommunication services can play an effective role in the growth of the national economy. The possibilities of self-financing, that is raising additional resources, particularly from market borrowings, have been considered and recently Indian Telephone Industries made a public issue of bonds.

The strategy of rapid modernisation as envisaged in the seventh Plan proposes, among others, the following measures: (i) To improve or replace worn-out equipment and make a jump in digital electronic and optic fibre, (ii) To integrate services with the eventual target of providing Integrated Services Digital Network (ISDN), (iii) To advise on application of new technologies in fields of hardware and software in India's future network plans, (iv) To extend telecommunication to rural areas, (v) To provide new services to help promote growth in the business and industrial sectors, and (vi) To provide effective telecom organisation and management to be able to operate its systems and plans for the future.

The importance of development of the telecommunications sector has been realised and necessary attention is being given in this regard. At a recent national conference on 'Integrated Development of the Telecommunications Sector', Mr S Ravi, joint secretary of the Department of Electronics, announced that two working groups were being set up by the Centre. One of the groups will draw up a perspective master plan for an integrated communications network for 2001 AD, and the other was being constituted for developing a business communications network by establishing low-cost earth terminals for the transfer of data and the exchange of messages, without voice, through satellites. The network would initially cover 100 towns of the country, each linked to the network by the Very High Frequency (VHF) or Ultra High Frequency (UHF) wireless systems.

The need for sophisticated technology, which automatically calls for heavy investment by the Government, was emphasised at the conference and effort at indigenous manufacturing was advocated by the experts, including Dr M S Sanjeevi Rao, former Chairman of the Electronics Commission, as the country had sufficient skilled manpower and was capable of technological innovation. Research and Development efforts have to be geared up and the allocation of Rs 245 crore for the Telecommunications Research Centre is definitely a step in the right direction.

/9317
CSO: 5550/0156

MOVEMENT TO SET UP RURAL COMMUNICATIONS NETWORK

Calcutta THE SUNDAY STATESMAN in English 27 Jul 86 p 9

[Text]

BANGALORE, July 26.—The Centre for Development of Telematics (CDOT) here is concentrating its efforts on manufacturing solar-powered, remote-controlled, digital 1000-line telephone exchanges to build a rural communication network in the country, reports PTI.

Delivering a talk on "Telecommunication needs in the 21st century", organized by the Indo-American Chamber of Commerce here yesterday, the CDOT Managing Director, Mr M. V. Pitke, said these exchanges were in an advanced stage of experimentation and four or five would be set up in different parts of the country in three years. He said the exchange would be the all-weather type like the 128-line exchange recently set up at Kittur, in Karnataka.

Mr Pitke said that in the long run the country needed fully indigenous telecom technology. Less than 10% of the cost of imported telephone equipment constituted material cost, the rest being in technology and software development. Therefore, in reality, the country was importing expensive labour.

He said the country's policy in technology transfers was faulty. After initial imports, the manufacturers should be able to make further advancement. But, after one generation of technology was imported the West went ahead while India continued to use relatively obsolete technology.

Mr Pitke said the main problem with the Indian high technology industry was that it was caught in a vicious circle of high cost, low capacity, poor market and unreliable product.

/9317
CSO: 5550/0154

NEW SATELLITE TRACKING STATION WILL BE INSTALLED IN BANGALORE

Calcutta THE SUNDAY STATESMAN in English 27 Jul 86 p 7

[Text] Bangalore, July 26--The Department of Space is setting up a Rs 10 crore satellite control centre here for tracking Low Earth Orbit satellites, according to Dr P.N. Jayaraman, deputy programme director, Indian Middle Atmosphere Programme, reports PTI.

The new centre, which was expected to be operational by next year, would be used for tracking and controlling Low Earth Orbit satellites such as the Rohini series satellites while the Master Control Facility at Hassan would continue to track geo-stationary satellites of INSAT and IRS series, he said while speaking on "satellite launch facility and tracking network" at Bangalore Science Forum here yesterday.

He said the new satellite tracking, telemetry and command centre would be connected with all the ground stations in the country and abroad, initially through microwave links and later via satellite. Bangalore already is the headquarters for the ISRO Telemetry, Tracking and Command Network, which manages the ground support network for tracking, data acquisition and spacecraft control operations for the country's space projects.

Dr Jayaraman said the country's second generation launch vehicle, Augmented Satellite Launch Vehicle, was likely to be launched from the SHAR (Shri harikota High altitude Range) centre in October this year. The 39-tonne vehicle would place into orbit the first Low Earth Orbit satellite in the Stretched Rohini Satellite Series.

On launching facilities in the country, Dr Jayaraman said as the SHAR range could not be used for launching satellites with higher payloads, a new launching range was likely to be set up at Balasore, which at present was being used for launching sounding rockets for conducting monsoon studies. This proposed centre would be used for launching larger sun-syncronous satellites using bigger launch vehicles.

/9317
CSO: 5550/0155

BRIEFS

INSAT 1-C LAUNCH PLAN--New Delhi, July 24--The INSAT 1-C satellite is now expected to be launched in the early part of 1988, the Minister of State for Science and Technology, Mr Shivraj Patil, told the Rajya Sabha during question hour today. It had been decided to use the European Launch Vehicle, the Arianne rocket, to put the satellite into orbit. Originally, INSAT 1-C was to have been launched this September by the space shuttle of the National Aeronautics and Space Administration, USA. However, after the explosion of Challenger in January, that programme had been affected. Answering a number of supplementaries, the Minister said that after the Challenger trouble, it had been hoped to use the American Delta rocket. That was why the Government had originally felt that the INSAT 1-C launch would not be delayed after Challenger blew up. But then there was trouble with the Delta. There had been problems with the Arianne as well. In fact, 1986 had been a bad year for space programmes, Mr Patil observed. That was why the tentative date was now fixed in early 1988. There was a possibility of an earlier Arianne launch. He hoped it would come about, but nothing definite could be said at this stage. Switching from the space shuttle to Arianne had involved an additional expenditure of Rs 23 crores, including the cost of modifications that would have to be made to the satellite since the nature of launch vehicle had been changed. The satellite was ready, but no launch vehicle was immediately available. [Text] [Calcutta THE STATESMAN in English 25 Jul 86 p 7] /9317

HYDERABAD INTERNATIONAL DIALING--Hyderabad, June 30--The international subscriber dialling (ISD) facility would be available for telephone subscribers in the twin cities of Hyderabad and Secunderabad from tomorrow. The new service will connect 12 countries to the twin cities, according to general manager of Hyderabad Telephones M R Subrahmanyam. Announcing this today, Mr Subrahmanyam said the subscribers can now make direct calls to Australia, Austria, Belgium, France, Hong Kong, Italy, Japan, Malaysia, Netherlands, Singapore, United Kingdom and West Germany. The new service would be available to subscribers having STD facility only. [Text] [New Delhi PATRIOT in English 1 Jul 86 p 6] /13046

CSO: 5550/0148

BRIEFS

NEW RADIO STATION--Work is underway in al-Mukalla to complete the 50 kw medium wave radio station project before the year's end. So far, 80 percent of the station's building has been completed by the Industrial Construction and Installation Corporation, Hadramawt Branch, which has contracted for the 48,644 dinar project. The building is scheduled for completion at the end of next June when work will begin on constructing the antenna bases and a fence around the station. Thereafter, advisors from the British firm of Marconi will install and operate the station. Radio transmission engineers say that the new radio station will cover almost all of the Hadramawt and parts of the Shabwah and al-Mahrah Governorates during daylight hours. At night it will cover most of Harramawt, Shabwah, and al-Mahrah Governorates and most of the coastal strip of the republic.

[Text] [Aden AL-SHARARAH in Arabic 5 Jun 86 p 1] 12502

CSO: 5500/4509

SENATE REJECTS CONTRACT TO CANADIAN FIRM

AB261002 Monrovia Radio ELWA in English 2000 GMT 25 Jul 86

[Text] The Liberian Senate has voted in favor of the complete cancellation of the $17 million contract awarded to a Canadian-based company, (Spy Aerospace), by the Liberia Telecommunications Corporation, LTC. According to a capitol release, the contract was designed for the expansion of the present earth satellite station on (Tubman Bullroad), Sinkor, to accomodate between 350 to 500 international circuits, instead of the present 39 at Liberia's disposal.

The release said the vote was based on the findings and telecommunications contained in the report of a 4-man senate special committee set up to conduct and investigate uncertainties surrounding the project and awarding of the contract to (Spy Aerospace). It further said the senate committee report indicates that LTC entered into a lone negotiation and committed the Liberian Government without legislative enactment in contravention of Article 34, Section b, Subsection 3 of the Liberian Constitution that no money shall be raised by the government on behalf of the Republic, or guarantees given for any public institution or authority otherwise than by or under the authority of a legislative enactment.

The report further indicates that other parties interested in the contract were not given sufficient opportunity to participate in the bidding process, as a consequence of which those who bid for less than $17 million were left out. The Finance Ministry has already rejected LTC's request to guarantee the loan on the ground that the procedure was irregular, and that the ministry did not participate in the negotiations.

The release further said that the senate committee's report also revealed that LTC did not take into consideration the fact that the quotation of (Spy Aerospace) in the amount of $17 million does not include the accruing cost to government because there was no cost analysis made. Meanwhile, the senate decision has been forwarded to the president of Liberia, Dr Samuel Kanyon Doe.

/9738
CSO: 5500/99

BRIEFS

RADIO BOPHUTHATSWANA CHANGES FREQUENCIES--Mmabatho, July 14, SAPA--Radio Bophuthatswana changes six of its FM frequencies this month. Tomorrow Ga-Rankuwa moves to 103.9 mHz, Klipvoordam to 102.4 mHz, Madikwe to 103.3 mHz and Motswedi to 107.1 mHz. The next change takes place on Friday, July 18, affecting the FM station at Itsoseng which moved to 101.8 mHz. Finally, Mmabatho makes a move on Wednesday, July 23, to the new 88.7 mHz. The remaining six FM stations will change their frequencies later in the year. Radio BOP can also be heard throughout the PWV [Pretoria-Witwatersrand-Vereeniging] area during the day--and all of southern Africa at night--on medium wave 109.[remainder indistinct] KHZ. [Johannesburg SAPA in English 1802 GMT 14 Jul 86 MB] /6662

CSO: 5500/95

EEC PREPARING 10-YEAR ISDN PLAN

Amsterdam COMPUTABLE in Dutch 2 May 86 p 2

[Article: "The EEC's 10-year Plan for Telecommunications: 4 Million Pounds for Infrastructure"; first paragraph is COMPUTABLE introduction]

[Text] Brussels--The European Community's goal is to modernize the telecommunications infrastructure within 10 years, during which time the public networks are to become faster, offer more services, and, in addition, achieve a geographic coverage of 80 percent.

The broadband ISDN [Integrated Services Digital Network] network is to be widely introduced in all 12 EC member-states by the mid-nineties. To realize this objective a multiyear plan has been set up which includes three phases and is to start at the end of the year. Prior to this an inventory has to be made of the existing digital networks, and national requirements and regulations must be adjusted so that industry and investors no longer have to contend with a variety of laws and procedures.

The first phase of the plan starts at the end of the year and will continue until the beginning of 1988. Within this period telephone and telex networks are to be speeded up and improved. The following phase covers 5 years and ends at the beginning of 1993. Within this period various services are to be provided, based partly on ISDN technologies which will then gradually become available. Such services will include, for example, audioconferencing, improved videotext services, automated telephone callback facilities, and identification of callers at the other end of the telephone line.

In the third phase, there will be more general use of packet switching for telex, videotex , teleshopping, telesurveillance, telealarm, and videoconferencing. In addition, more use is to be made of higher transmission speeds. The European Commission, which intends to set aside 4 million pounds (nearly 15 million guilders) for this scheme, hopes that the European economy will especially benefit from these measures. The advantages will mainly be in the simplifcation and cost reduction (through acceleration) of international communications. Shortly after 1993 these services, which are to have an 80 percent geographical coverage by 1993, are also to be made available to small and medium-sized companies. Furthermore, this network should provide access to at least 5 percent of the planned electronic services. After deliberation with the European PTT's [Post, Telephone and Telegraph], discussions will continue in June on how this program should be continued.

NORDIC COUNTRIES' TELE-X LAUNCH DELAYED FOLLOWING ARIANE FAILURE

Stockholm SVENSKA DAGBLADET in Swedish 6 Jul 86 p 14

[Article by Gote Andersson]

[Text] The Tele-X satellite and a number of other satellites that will transmit satellite TV over Europe will be delayed. The Tele-X will probably be delayed 4 or 5 months and other satellites face even longer delays. The reason is space accidents.

That will be the probable result of the report on the accident in May involving the European Ariane rocket, according to sources in the Telecommunications Agency and the Space Corporation. In the May accident a rocket launch failed and two satellites were destroyed.

The French company Arianespace, which conducts the Ariane rocket launches, will present a report on the accident next week. At the end of June the English FINANCIAL TIMES wrote that Frederic d'Allest, chairman of the Arianespace board of directors, predicted that rocket launches would be resumed by the end of 1986. This would delay the entire planned program by around 6 months.

No Explanation

"I would be surprised if the delay is only 6 months in duration," said Sven Gran of the Swedish Space Corporation, which is responsible for Tele-X. "There is a risk of further delays. A delay of 6 months is the optimum scenario."

Gran has learned unofficially from Arianespace that the company has no definitive technical explanation as yet for the accident in May. A number of tests will now be conducted and then Arianespace expects to send up the next rocket before the end of the year.

The Space Corporation is now waiting for the definitive accident report.

No one had expected a crisis in rocket launches. The American space shuttle, which was another alternative for sending up satellites, has been delayed for 2 years and will not resume launches before 1988, Sven Gran pointed out.

Due to the problems with the Ariane, a number of satellite TV channels will be delayed. This will affect the programs offered on the Swedish cable TV network. In addition to Tele-X, this will involve the Eutelsat S-4 satellite on which the Swedish Telecommunications Agency intends to lease out capacity, Luxembourg's SES satellite project (now rechristened Astra), the West German TV-SAT satellite, the French TDS and the European Olympus. Tele-X was originally scheduled for launching in June 1987 and it would have started operations in January 1988 following technical tests. The Space Corporation now thinks Tele-X could go into operation in April or May 1988.

More Satellites

Other satellites will be affected by the long delays. However Gran pointed out that Arianespace intends to send up more satellites in 1987 than originally planned. This would partly offset the delays. But even if everything goes according to plan it will take 2 years to get the launch program back on schedule, according to reports from Arianespace. This is probably based on the assumption that there will be no more accidents.

Arianespace had planned to send up seven rockets in 1986, but now there will probably be only three launches. Each rocket has a capacity to put one or two satellites into orbit. So far 18 Ariane rockets have been launched and four of the launches were unsuccessful. According to the English FINANCIAL TIMES, Arianespace has orders to launch 33 satellites, in other words orders worth 14 billion kronor.

It costs 250 million kronor to send one communications satellite into space. Each satellite is worth at least 500 million kronor. After the latest accidents it has also become difficult to insure satellite launches. Before the Ariane accident, the insurance premium was 30 percent of the total value of the satellite plus launching costs.

6578
CSO: 5500/2712

AGENCY UNDERTAKING TELEDATA TESTS

Oslo AFTENPOSTEN in Norwegian 24 Jun 86 p 48

[Article by Martin Eide: "Teledata Finally Operational"]

[Text] Some 60 farmers are among the "test rabbits" of Televerket's teledata service, which officially went into operation 23 June. Teledata is a two-way data service, whereby users can obtain data-base information via telephone. Various data suppliers are renting space in Televerket's data base and are responsible for updating the base information.

The agricultural teleservice AgroNor is one of several such suppliers. "Teledata is a tool that can lighten the farmer's workday. Up-to-date market information, the latest weather forecasts and advice on spraying, for example, will make it easier for farmers to make the right decisions at the right time," said Amund Spangen, administrative group chairman of AgroNor, at the opening of the Teledata center in Floyfjellet, Bergen. Farmers in Hedmark, Oppland and Vestfold are among those testing the use of modern computer technology in agriculture.

But farmers are not the only ones needing information to make good decisions. "This is a medium of information from anybody to anybody," said Petter Moshus, a Televerket consultant in establishing this service, which according to its proponents is late but good. He mentioned the exchange of information between an industrial concern's main office and its local offices as one of industry's uses of teledata.

The international designation for this service is Videotex, which also produces colorful illustrations. A farmer, for example, can view the development of various plant diseases on his TV or computer screen.

Government offices are also seen as central data suppliers for Teledata. "As far as the government is concerned, Teledata could put legislation into practice," Moshus pointed out.

According to Televerket's own predictions, Teledata will have 3,000 subscribers by the end of this year, 6,000 by the end of 1987 and 12,000 in 1988. By the end of 1991, the goal is 45,000 users of this new medium of information. The charge for using the service is the same whether you call from Nordkapp or Kristiansand. Payment of bills is another service that will be available via Teledata.

Although Teledata is a medium of information from anybody to anybody, in its present form it is primarily a medium of information to help farmers and directors make the right decisions at the right time.

8952
CSO: 5500/2706

BRIEFS

DIGITAL PHONE EXCHANGE--A new digital phone exchange went into operation in Bodo 1 July. The initial phase of the exchange has 15,000 subscribers and serves Finnmark, Troms, Nordland, Nord-Trondelag and portions of Sor-Trondelag. The equipment is supplied by EB Telecom in cooperation with L. M. Ericsson. [Text] [Oslo AFTENPOSTEN in Norwegian 4 Jul 86 p 34] 8952

CSO: 5500/2706

DIAB HOPES FOR INCREASED EXPORTS UNDER STATE OWNERSHIP

Stockholm SVENSKA DAGBLADET in Swedish 4 Jul 86 p 27

[Article by Lennart Moberg; first paragraph is SVENSKA DAGBLADET introduction]

[Text] The Diab computer company, which is listed on the stock exchange, will become a subsidiary of state-owned Teli. The transaction was revealed on Friday.

Teli is buying the stock holdings of Ahlsell, Nokia and Beijer in Diab. It will then own 51 percent of the stock and can turn Diab into a subsidiary.

Teli is the Telecommunications Agency's industrial division with 3,500 employees and sales of around 2 billion kronor. At the end of the year the company will change from a state-owned division to a state-owned corporation.

Among other things the firm manufactures telephones, the new AXE exchange and digital and analogue business exchange systems.

Development Company

Diab is a computer development company. It was started in 1970 by computer entrepreneur Lars Karlsson, who sold the firm several years ago and is now making his way in Silicon Valley, the home of the U.S. computer giants.

Diab consists of 80 people, 30 of whom work on the development of various computer products. They have been very successful and among other things designed the core of Luxor's ABC, in other words the brains of the computer.

Luxor's ABC computer is internationally recognized.

Diab also designs entire industrial computer systems and works with license sales.

Big Asset

Although the firm has been successful in its development work, it has had financial problems at times. But now things have changed.

Olle Andersson, vice president of Teli, explained the purchase in these words:

"Diab is good at product development and it is oriented toward telecommunications, among other things, which will be a big asset for us when we develop our products.

"Their expertise will be very useful when we develop new telephone exchanges. Development will proceed at a faster pace.

"In addition we have been building up an export organization for the last 2 years with a lot of emphasis on sales abroad. Diab's good international reputation will be a big help in our promotion," said Olle Andersson.

But what will Diab get out of becoming owned by the state?

"In the first place it will have stronger owners. In the second place the sales organization there has been poorly developed. Now Diab can take advantage of our considerably larger organization."

"We view this very positively," said Rolf Akerlind, president of Diab. "We are a pure development company, so we need a large contact area. I think we will be a strong and interesting block. Among other things it will be easier for us to come in when purchases by state offices are involved. It is not so important that Teli is a state-owned company."

6578
CSO: 5500/2712

END